

WINDOW AND DOOR SCREENS

"In the Language of the Architect"

The Fly Outside



TRADE-MARK

1930

**WATSON MANUFACTURING CO.
JAMESTOWN, N. Y.**

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WAGON

WAGON

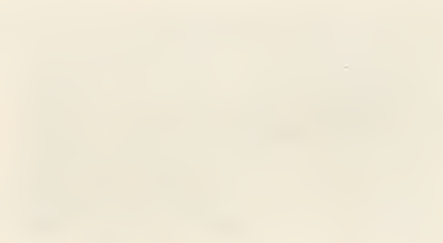
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FOREWORD

THIS catalogue is a reprint of the Watson Manufacturing Company's catalogue in the 1930 Edition of Sweet's Architectural Catalogue.

It was prepared by a committee of architects primarily to present the subject in a way most understandable and serviceable to the working force in the architects' offices and it is hoped that this objective has been attained.

Requests for duplicates are invited.

WATSON QUALITY SCREENS

FOR

EVERY SCREENING REQUIREMENT
IN ALL TYPES OF BUILDINGS

INASMUCH as we manufacture a complete line of all kinds of screens, both frame and roll, of all suitable kinds of materials, we do not need to exaggerate the merits of any particular kind of screen. We are therefore unprejudiced in our recommendation as to the proper type of screen to use, to best fulfill the requirements of the condition. It is hoped that this catalog, prepared by a committee of architects, will serve as a reliable guide to the architectural profession.

VERY IMPORTANT — ORDER SCREENS EARLY



Executive Office and Factory
JAMESTOWN, N. Y.

THE COMPANY AND ITS SERVICES

The Watson Manufacturing Company and the Quality of Its Products

For almost forty years, this company has specialized in manufacturing and perfecting window screens. Our products cover the highest quality of bronze, steel, aluminum and wood screens, metal and wood doors and necessary structural work to meet all conditions. We also make various forms of flat and irregular shaped screens and roll screens. Although our quality is of the best of its kind our prices will be found to compare favorably with those for any other similar quality.

The factory is equipped with the most modern machinery, much of it specially designed for the satisfactory production of our work. Due to central location, good shipping facilities are provided.

A Complete Screening and Installation Service for All Types of Buildings

On accepting an order, we assume all responsibility for the successful and satisfactory screening of the building. Our representatives in various parts of the country are experts. They will confer with and advise architects as to the most satisfactory method of screening any condition. They take all measurements, carefully observe all details and conditions, and the screens are installed under their supervision.

A Separate Screen Contract Advisable

Because of the highly specialized nature of screen work and installation, we advise that a contract, separate from the general contract, be made for screens. General contractors frequently consider only price and fail to furnish the quality, adaptability and efficiency contemplated by the architect. This results in dissatisfaction to him and his client.

Quality of Construction and Materials Should Be Considered in Making Cost Comparison

There is such a wide difference in quality of materials, workmanship, adaptability, utility, manner of application, etc., as well as in the reputation and experience of the manufacturer and sales representatives, that all details of proposals should be carefully considered before awarding contracts. In absence of uniformity, price is not the only consideration.

When Screens Should Be Ordered and Installed

Insect screening should be ordered so that it can be completed before the building is occupied, regardless of the season of the year.

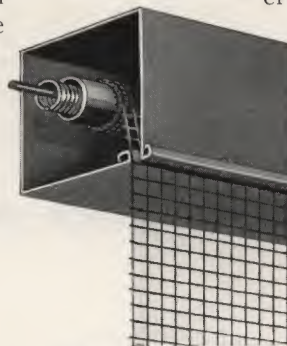
This avoids annoyance to the occupants and possible injury to floors, rugs, draperies, etc., as well as frequent and serious delays because of congested condition of screen factories in the spring. Early installation may also provide protection during interior finishing, wall decorating and furnishing.



TRADE-MARK



Watson Metal Frame Screen



Watson Roll Screen



Watson Wood Frame Screen



Screens Should Be Decided Upon During the Preparation of Working Drawings

Insect screening is a recognized necessity of the greatest importance, which unfortunately often receives little or no consideration in the preparing of plans and details. It is safe to assume, whether or not the insect screens are included in the specifications or general contract, that they will eventually be required. We therefore urge that design and construction should be so arranged to allow for future use of screens in an economical and satisfactory way.

Co-operation with the Architect by Watson Engineering Service

Many architects make use of our Engineering Department regarding the proper solution for all kinds of screening problems. Inquiries of this nature are carefully considered and practical suggestions and recommendations are made. Inquiries should be sufficiently complete to enable us to fully understand conditions and the results desired.

As We Make All Types of Frame and Roll Screens, We Can Offer Unprejudiced Advice Regarding Type of Screen to Use

We manufacture all types of roll, flat, cage or irregular metal or wood frame screens and metal doors. We are therefore not influenced by factory limitations or business interests in our recommendations as to screening problems.

In all particulars this catalogue is unprejudiced in its information both in the description of screens and in the details of installation. The drawings have been prepared under the supervision of a member of the American Institute of Architects in order to secure the best professional advice regarding architectural construction.

Our own engineering department has furnished the technical screening information and its application to the construction details.

FUNDAMENTAL CONSIDERATIONS REGARDING SCREENS

The Proper Method of Screening Any Opening

There are usually several methods of screening almost any opening. The best method of screening an opening depends on the screening results desired, the type of sash or door and the surrounding conditions affecting the installation.

Conditions vary so much in the operation of the various types of sash, that screens for almost every sash have to be studied individually so as to fit the screen to the type under consideration. Sash even of the same size and type often require different types of screens on account of the surrounding conditions.

Two Fundamental Screening Rules

In a general way, difficulties experienced in applying insect screens to window, door and porch openings, are the result of the failure to observe two fundamental principles as follows:

First—To provide a suitable framework or surface at top, bottom and sides of openings for reception of screens.

Second—To arrange all sash, blinds, shutters, doors, flower boxes, curtains, draperies, electrical fixtures, other accessories and hardware connected therewith so as not to encroach on space provided for screens, or to prevent proper swinging of case—ment screens and screen doors.

In examining the construction details and recommendations regarding the screening of various types of openings, the architect will find that we have stressed certain requirements which are basically necessary for proper screening conditions. We

strongly urge that these requirements be taken care of in scale and full size details of the openings and frames.

Co-operation with the Architect

Many architects communicate with us or our representatives and have us go into the screening problem thoroughly before the window and door details are issued. By doing so, they are assured that unsatisfactory screening problems will not be encountered, whether we receive the contract or not. We have installed screens for all types of openings and our knowledge and experience is always at the service of the architect.

Screen Specifications—Except as described and shown in drawings, we are making no attempt to suggest specifications, which vary greatly according to condition of each job. We shall be glad at any time to assist architects in preparing specifications and details.

Co-operation of this Company with Manufacturers of Steel and Special Sash in Screening Their Various Types of Sash

We have worked in close co-operation with the various manufacturers of steel sash in regard to screening the types they make. We will furnish details of the various sash and methods of screening them. Formerly screening of the sash was not given much consideration by sash manufacturers, especially of industrial types of sash, but all types can now be screened.

CLASSIFICATION OF WINDOW SCREENS

Definition of Frame Screens and Roll Screens

Frame Screens—Any screen made with a metal or wood frame in which the wire mesh is stationary. Screen frame may be of any size or shape.

Roll Screens—One in which the wire cloth is not held stationary in a frame, but one end is fastened to a roller, either spring or otherwise, and is wound or unwound around the roller as the screen is raised or lowered in the same manner as our ordinary window shade.

Types of Frame Screens

Full Height (Covering Entire Opening)—

Stationary
Top Hung—Top Hinged or Pivoted
Side Hung—Hinged or Pivoted
Sliding—Vertical or Horizontal
Cage Screens (for Pivoted Sash)

Part Height Screens—

Stationary
Sliding
Top Hung—Top Hinged or Pivoted
Side Hung—Hinged or Pivoted

Types of Roll Screens

Full Height
Part Height

Types for Steel and Metal-covered Windows

New types of metal sash are constantly being developed by metal sash manufacturers. We have studied the new as well as old type of metal windows and can screen all of these various types.

Types for Special Shapes and Bent Work

Screens of special shapes including bent frames can be made to order in either metal or wood frame.

STANDARD FEATURES OF WATSON SCREENS

Patented Features of Watson Screens

Many details of construction which make our screens of superior quality in appearance, durability, adaptability and efficiency are covered by patents controlled and used only by this company.

Why We Use Bronze Wire Cloth As Standard

We have adopted, as standard, 16 mesh Anaconda commercial bronze wire cloth which is giving universal satisfaction. Where an excessive amount of

coal smoke or chemical fumes are present or where subjected to salt spray, bronze cloth will corrode but will not rust. Under such conditions monel metal or "ambrac," alloys of nickel and copper, are more durable.

Watson Screen Hardware Made in Our Factory

Practically all the hardware referred to in this catalogue is made in our own plant. We can furnish hardware other than that shown in this catalogue to meet special conditions when necessary.

WATSON METAL FRAME SCREEN DOORS

Made in Four Kinds in Bronze and Steel

A Complete Line of Metal Screen Doors

All are of the best quality, materials and workmanship, differing in the weight of metal, width of stiles and rails, thickness and kind of hardware. They are made to measurements taken at the job.

Bronze Frame Doors — Manufactured of commercial Anaconda bronze containing not less than 90% copper.

Finishes—Finished in any of the various metal finishes or left unfinished, attaining a statuary bronze finish by exposure.

Steel Frame Doors — Made of copper bearing, open hearth, alloy-coated steel, electro-galvanized after fabrication.

Finishes—Finished with pyroxylin lacquer in any color desired or in paints, enamels, plain or grained.

General Construction — These doors are not

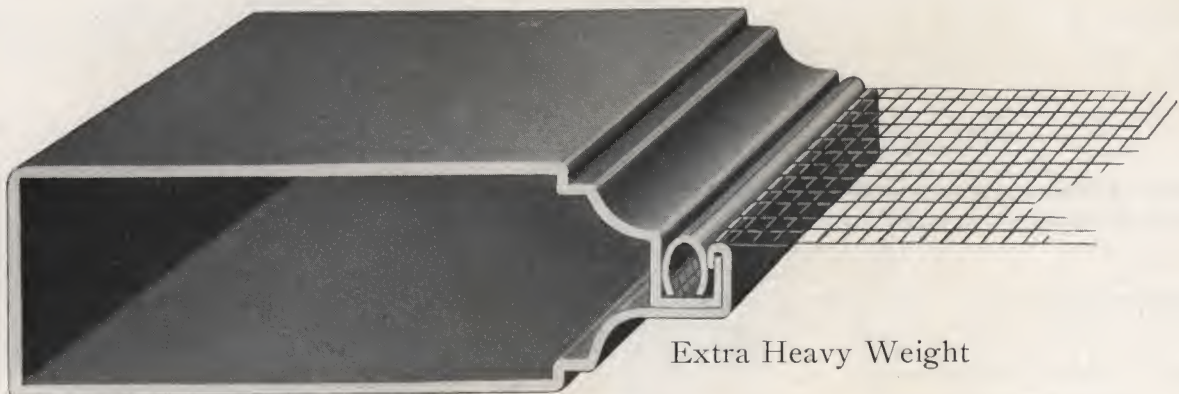


large screens, but in all details, the construction has been carefully worked out to attain maximum strength and durability. All inside reinforcements where necessary to give strength are of the same material as the frame. Much of the hardware has been specially designed. The illustrations below show the stiles of the doors in full size section to show the difference in size and weight.

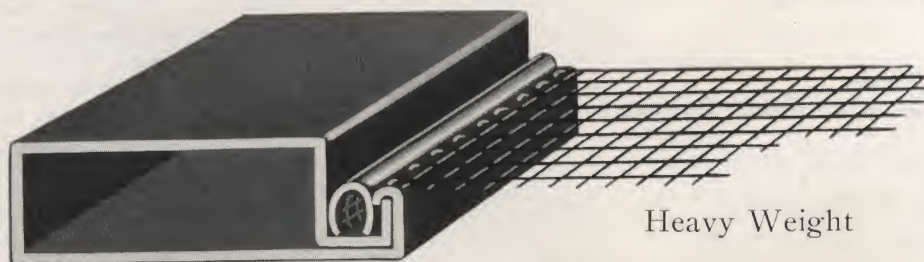
Readily Rewired — A resilient slotted tube securely holds the wire cloth in the groove of the frame. In case of damage to the wire cloth, the tube is easily removed, the old cloth taken out, new wire

cloth applied and the tube again replaced in the groove.

Other Metals—Consult us regarding doors of monel metal or aluminum.



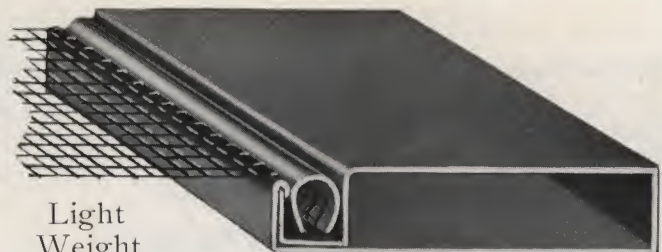
Extra Heavy Weight



Heavy Weight



Medium Weight



Light Weight

FULL SIZE SECTIONS OF WATSON METAL FRAME SCREEN DOORS

WATSON EXTRA HEAVY METAL DOOR

Highest Grade Metal Door in Bronze or Steel

For Use in Banks, Public Buildings, Residences, etc., Where the Finest Type of Door Is Required

These doors have been used for years in banks, public buildings and places where there is hard, continual service. They are very stiff and strong, being 1 1/8-in. thick, with 3 3/4-in. stiles, top and cross rails and with 5 3/4-in. bottom rails (11 3/4 in. in one panel doors). The metal is .050 in. thick, nearly 1/8 in.

Reinforcements .065 in. thick, of the same material as the door proper, are provided for checks, hinges, bolts and locks, and the full width of top, bottom, cross rails and all joints.

Screen Cloth — Extra Heavy 16 mesh No. 29 O.E. gauge (.0155) oxidized Anaconda

bronze wire cloth is used. Various kinds of grilles, kick plates, arm guards, etc., are furnished as required.

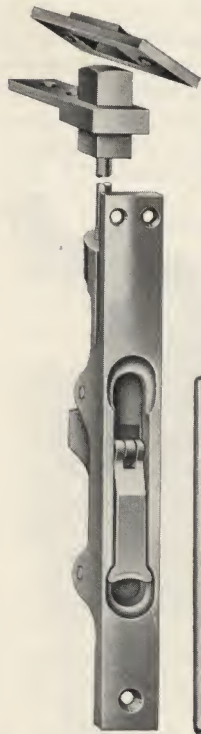
Hardware—All hardware is illustrated below and is of solid bronze for both steel and bronze doors (except that door checks are cast iron, gold bronze finished).

Hinges are 3 1/2 x 3 1/2-in. ball bearing solid bronze. Lock is solid bronze cylinder lock with lever inside, knob outside or may have two levers.

Finishes — See general description of finishes for all doors on page 4.



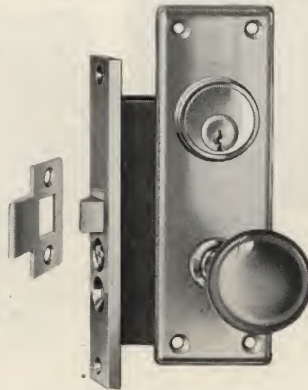
No. 225 Door Check



No. 314 Flush Bolt
Top and Bottom



No. 8 Cylinder Lock



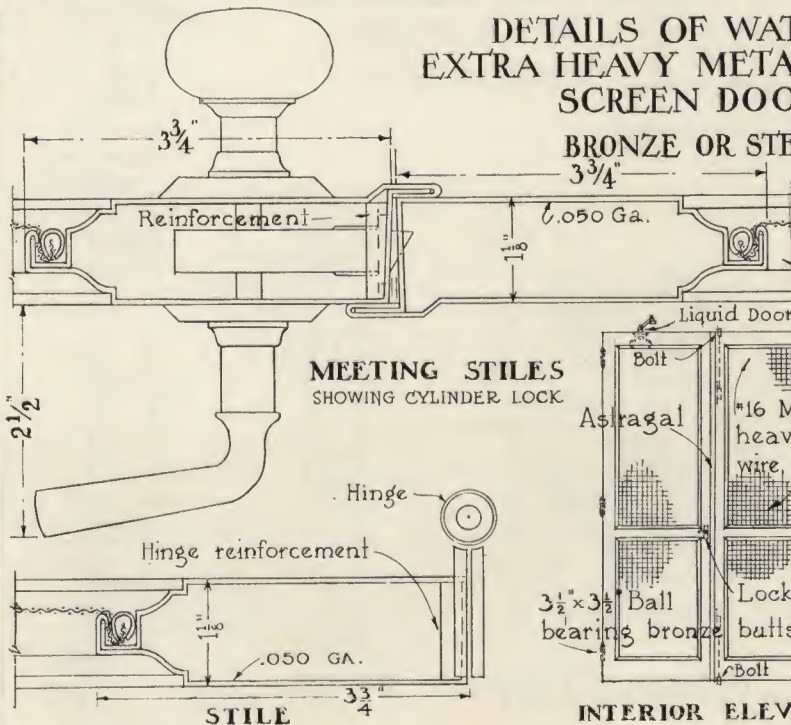
3 1/2 x 3 1/2-in. BB.
Bronze Hinges



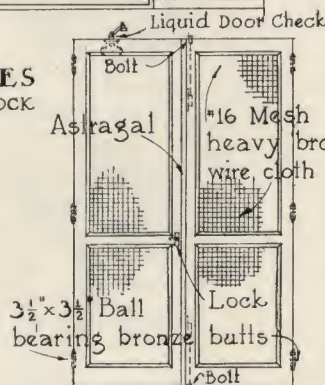
CROSS RAIL

DETAILS OF WATSON EXTRA HEAVY METAL FRAME SCREEN DOOR

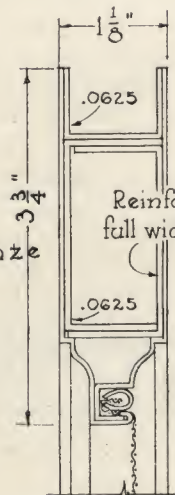
BRONZE OR STEEL



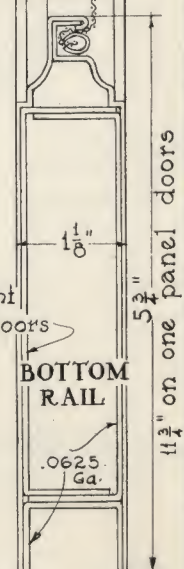
MEETING STILES
SHOWING CYLINDER LOCK



INTERIOR ELEVATION



TOP RAIL



BOTTOM
RAIL

DRWG. 1

WATSON HEAVY METAL DOOR A Strong Heavy Metal Door in Bronze or Steel

Ample Heavy for All Ordinary Requirements in Finest Residences

These doors are thinner and narrower than our extra heavy doors, but are of sufficient strength to well adapt them to almost any service. The frame work is $\frac{5}{8}$ in. thick with 2 in. stiles and cross rail, 3-in. top rail and $5\frac{3}{4}$ -in. bottom rail. The metal is .050 in. thick, nearly $\frac{1}{8}$ in. Reinforcements .050 in. thick, of the same material as the door proper, are provided for checks, hinges, bolts and locks, and the full width of top and bottom rails

and at intersection of cross rails and all corner joints.

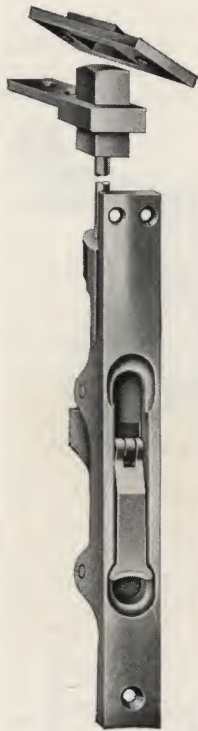
Screen Cloth—Standard weight 16 mesh oxidized Anaconda bronze wire cloth is used. Various kinds of grilles, kick plates, arm guards, etc., are furnished as required.

Hardware—All hardware supplied with this door is illustrated below and is of solid bronze for both steel and bronze doors (except that door checks are cast iron, gold bronze finished).

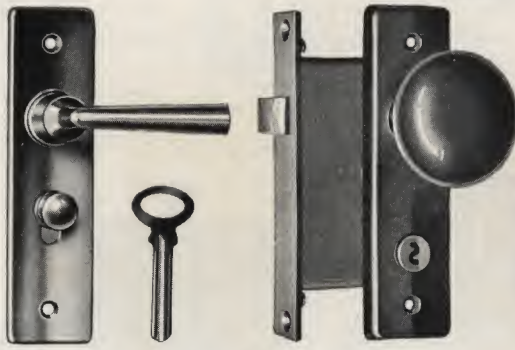
Hinges are 3x3 in. ball-bearing, solid bronze.

Latch solid bronze with universal key and with lever inside, knob outside.

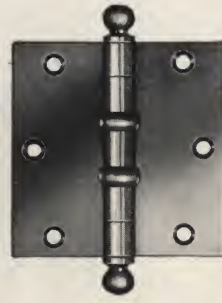
Finishes—See general description of finishes for all doors on page 4.



No. 314 Flush Bolt
Top and Bottom



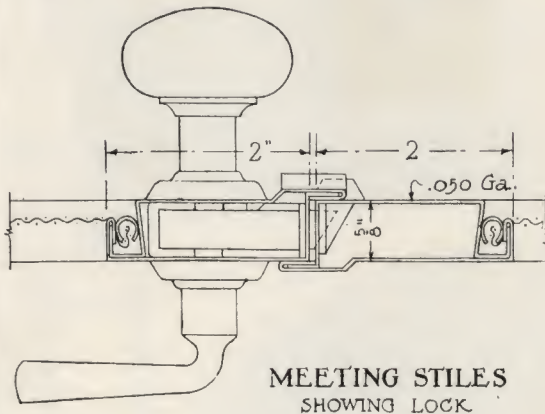
No. 1100 Mortise Lock



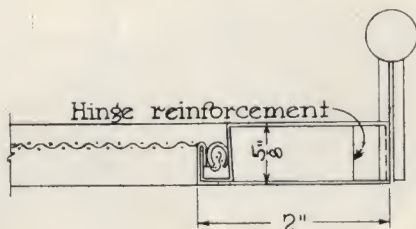
3x3 in. BB Bronze
Hinges



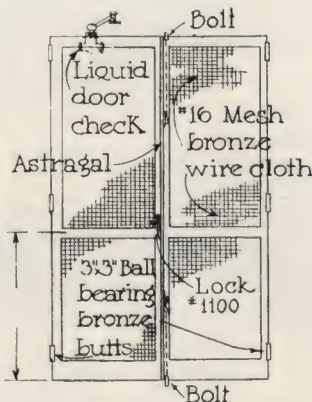
No. 177 Door Check



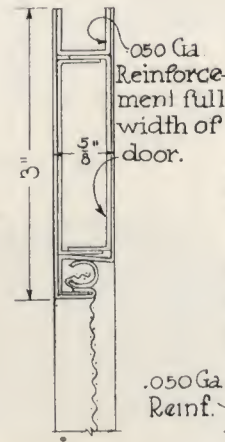
MEETING STILES
SHOWING LOCK



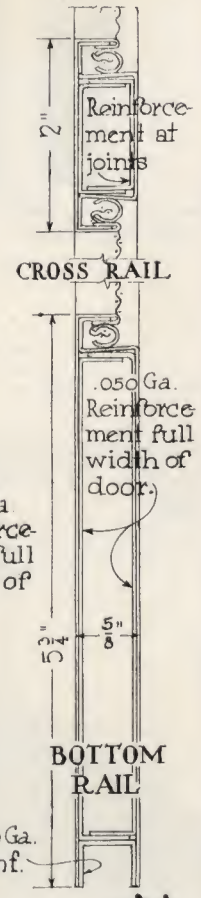
STILE
SHOWING HINGE



INTERIOR ELEVATION



TOP RAIL



BOTTOM
RAIL

DETAILS OF WATSON HEAVY METAL FRAME SCREEN DOOR BRONZE OR STEEL

DRWG
2

WATSON MEDIUM WEIGHT METAL DOOR

A High Grade, Medium Weight Metal Door in Bronze or Steel

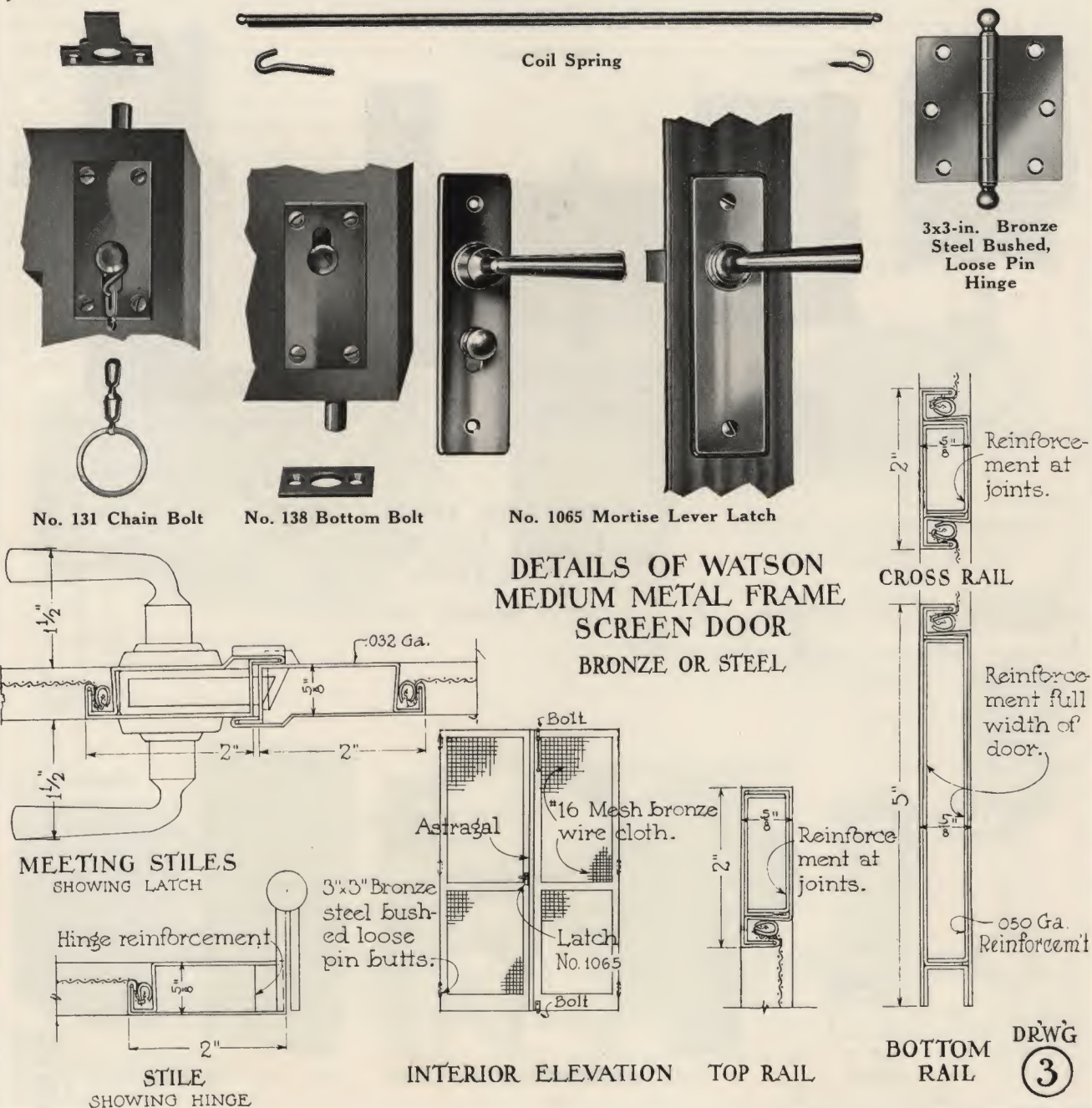
For Use Where Not Subjected to Hard Service

This door in appearance is the same as the Heavy Metal Door, but is made of lighter material and with less expensive hardware. The quality of the material and workmanship is as good in all respects. It is well adapted for ordinary residential use or where not subjected to continued or severe usage. They are quite stiff and strong. The frame is $\frac{5}{8}$ -in. thick with 2-in. stiles, top rails and cross rails, and 5-in. bottom rail. The metal is .032 in. thick. Reinforcements .050 in. thick, of the same material as the door proper, are provided for hinges, bolts and latch, the full width of bottom rail, at intersection of cross rail and at all corner joints.

Screen Cloth—Standard weight 16 mesh oxidized Anaconda bronze wire cloth is used.

Hardware—All hardware supplied with this door is illustrated below and is of solid bronze, for both steel and bronze doors. Hinges are 3x3-in. solid bronze, steel bushed, loose pin. Latch bolt is set from inside by slide stop. Door checks not regularly furnished, but when specially ordered, top rail will be made wider and reinforced for checks.

Finishes—See general description of finishes for all doors on page 4.



WATSON LIGHT WEIGHT METAL DOOR

A Light, Inexpensive Metal Door in Bronze or Steel

For Use Wherever a Light, Inexpensive Metal Door Is Required and Not Subject to Frequent Use

This is the lightest and least expensive door we manufacture. It will be found serviceable for French doors or other residential doors not subjected to hard usage. It is not a heavy window screen as it is differently constructed and reinforced, and under reasonable conditions of usage and care gives satisfactory service. Frames are

$\frac{7}{8}$ in. thick with 2-in. wide stiles, rails and cross rail.

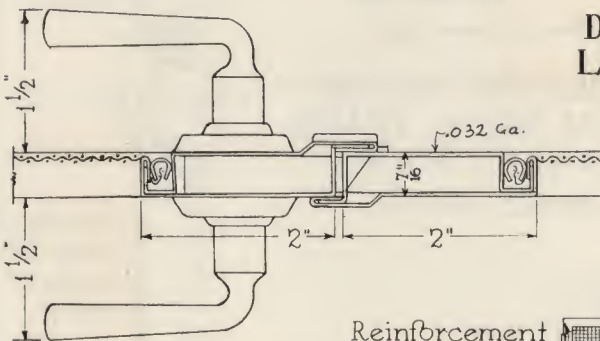
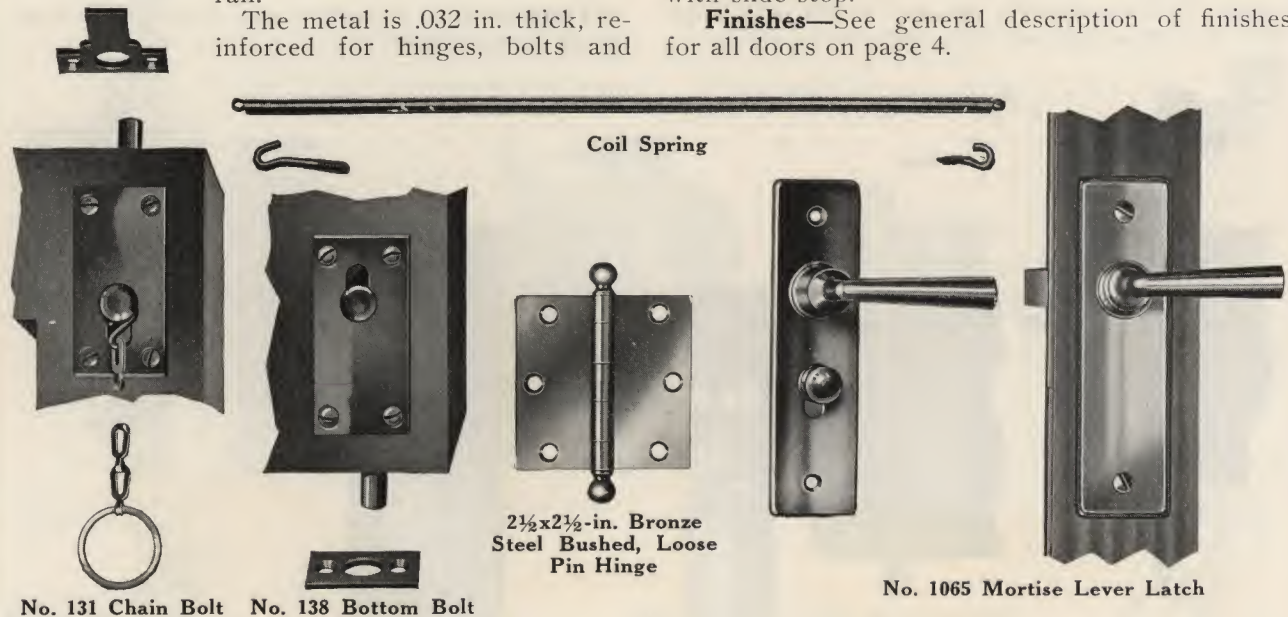
The metal is .032 in. thick, reinforced for hinges, bolts and

latches, also at all intersections of stiles and rails. Reinforcements of same material as the door.

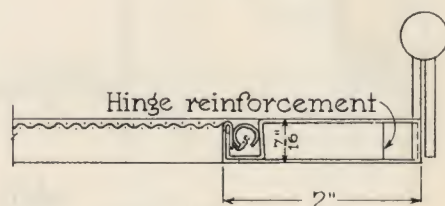
Screen Cloth—Standard weight 16 mesh oxidized Anaconda bronze wire cloth.

Hardware—All hardware supplied with door is illustrated below and is solid bronze for both bronze and steel doors. Hinges are $2\frac{1}{2} \times 2\frac{1}{2}$ -in. bronze, steel bushed loose pin. The latch is solid bronze with levers both sides, set from the inside with slide stop.

Finishes—See general description of finishes for all doors on page 4.

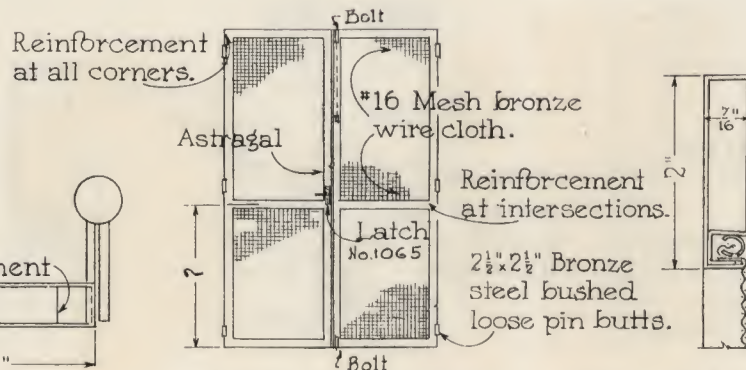


MEETING STILES
SHOWING LATCH

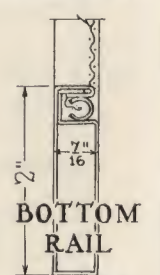
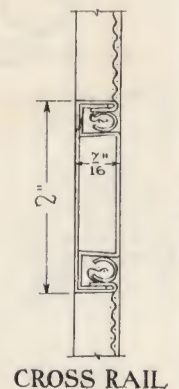


STILE
SHOWING HINGE

DETAILS OF WATSON LIGHT METAL FRAME SCREEN DOOR BRONZE OR STEEL



INTERIOR ELEVATION



TOP RAIL

DRWG.
4

WATSON WOOD FRAME SCREEN DOORS

General

Wood frame screen doors are usually constructed of soft pine finished with the best pyroxylin lacquer (Duco or equal) in any selected color. Also are made of any fine cabinet wood, finished to correspond with the adjacent woodwork. The doors are symmetrical in appearance and have as large an area of wire cloth as is consistent with the strength of the frame.

Materials and Construction—The frame is made of selected woods carefully seasoned and kiln dried. We have secured by our dowel corner construction and the use of waterproof glue, great strength and rigidity. Hardwood dowels are used and, being fully enclosed, can neither shrink, swell nor loosen, as no moisture can come in contact with the dowels or glue.

The rail is cope cut to fit the mouldings of the stile, providing additional gluing surface. Broken door corners of this construction are unknown.

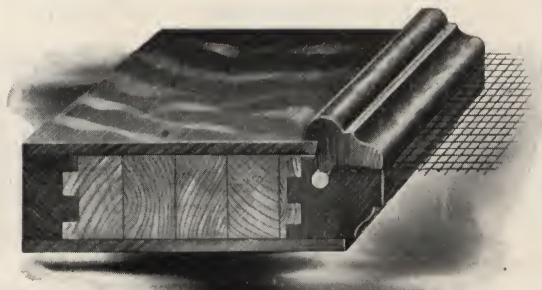
Fastening of the Wire Cloth—This is fastened in a grooved rabbet, located to retain

greatest amount of strength at the edge of the frame. The cloth is held in the groove by a rattan spline and is further secured by a neat wood moulding mitered at the corners, fastened with brass brads and shaped to hold the rattan in position, as is clearly illustrated below.

Hardwood Doors—We can furnish doors in the various hardwoods, finished to match the adjacent doors or woodwork. Watson standard construction is a veneer, illustrated below, over a soft pine core all glued with waterproof glue. We recommend veneered doors in preference to solid doors as being better in construction, lighter, better in appearance and less likely to warp and twist.

Hardware—Doors are regularly equipped with solid bronze hardware, as illustrated below. Guards are provided, as required, for bottom panels, as shown on following page.

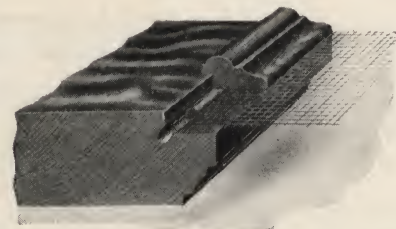
Styles of Doors—Made in any form of paneling, usually to correspond to the house door. Solid panels instead of guards are sometimes used at the bottom but, as they cut off ventilation, are not recommended.



Method of Veneering Hardwood Doors
Waterproof glue used throughout



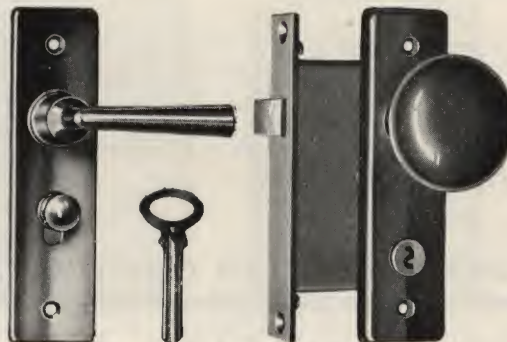
Wood Frame
Screen Door



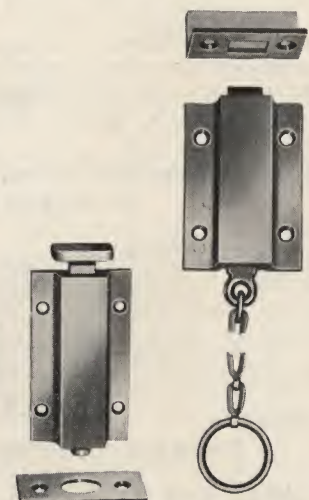
Method of Securing Wire Cloth in
Doors Showing Groove Spline
and Wood Cover Mould



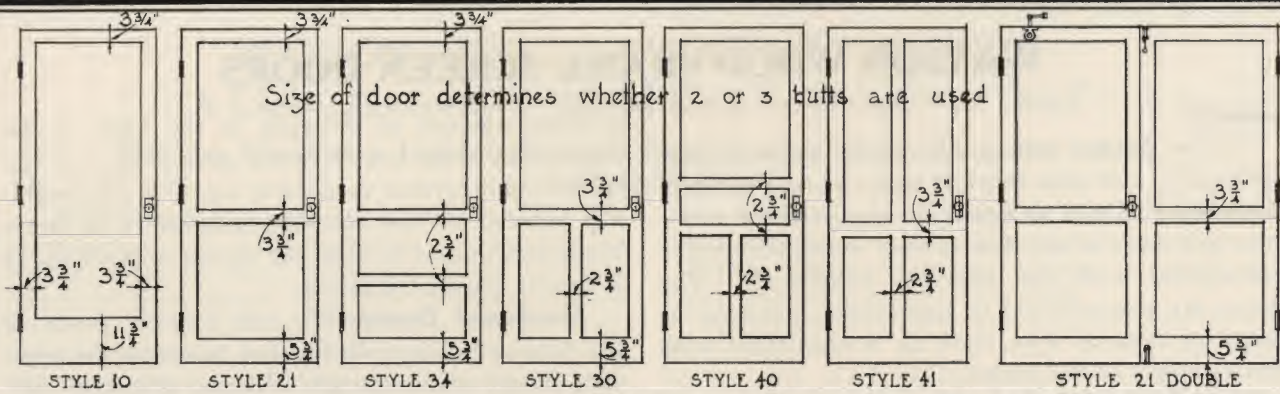
Detail of
Door Joint Showing Hard-
wood Dowels and Cope Cut Edge



No. 1100 Mortise Lock



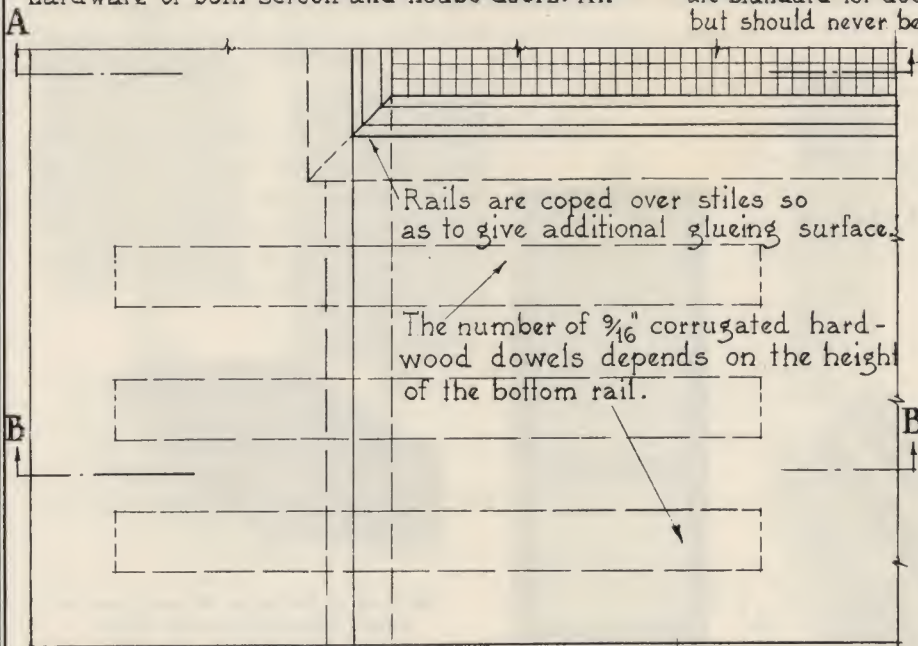
No. 96 Sur- No. 102 Sur-
face Bottom face Chain
Bolt Bolt
Used with double doors only



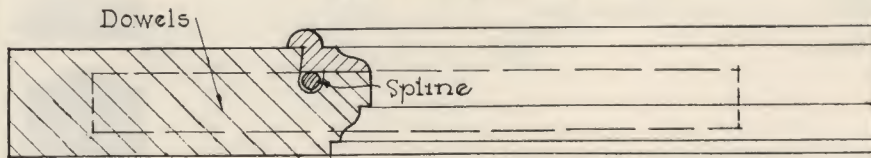
ELEVATIONS SHOWING TYPICAL STYLES OF WOOD FRAME DOORS

NOTES: It is desirable that a rabbet be provided to receive the top, sides and the bottom of all screen doors. Rabbet must always be as deep as the thickness of the door. Sufficient space must be allowed for the hardware of both screen and house doors. An

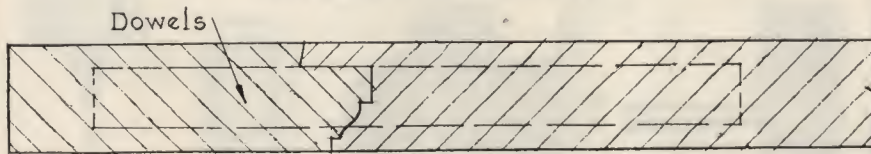
unobstructed swinging space must be provided. This especially refers to location of lighting fixtures. Stiles and top rails for French Doors may be 2 1/2 inches in width if standard latch is used. Special panel designs of any type may be made. Dimensions of stiles are standard for doors as shown. Can be varied but should never be made smaller.



ELEVATION



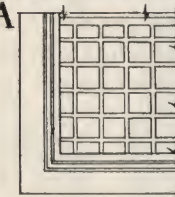
SECTION ON LINE "A-A"



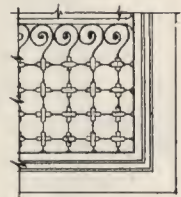
SECTION ON LINE "B-B"

Note:-
Standard thickness of doors 1 1/8"

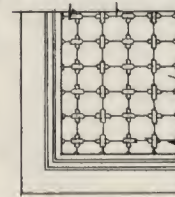
HALF F.S. DETAILS SHOWING CORNER CONSTRUCTION



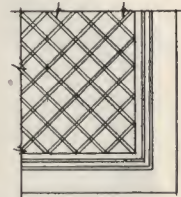
No. 2
Double crimped
flat bronze or
brass wire.
Made in light
weight 1" mesh,
or in heavy
weight 1 1/2" mesh.



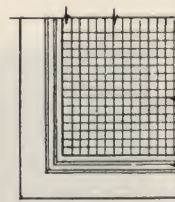
No. 8A
Quarter twist
flat bronze or
brass wire,
with rod and
scrolls, 1" and
1 1/2" mesh.



No. 8
Quarter twist
flat bronze or
brass wire
in 1" and 1 1/2"
mesh.



No. 23
Diamond mesh
double crimped
wire, galvanized
steel, brass or
bronze in 3/4", 1",
1 1/2", or 1 1/2" mesh.



No. 12

**VARIOUS DESIGNS OF
GUARDS USED WITH WOOD
FRAME DOORS**

WATSON
MANUFACTURING
COMPANY

STANDARD CONSTRUCTION FOR WATSON
WOOD FRAME SCREEN DOORS

SCALE: F.S. & 3" DWG
EQUALS 1'-0"
DATE: NOV. 29 5

WATSON METAL FRAME SCREENS

Metal frame screens have taken the place of wood screens in all the best work. Frame screens are in a good many ways the most satisfactory and lasting type of screen.

Metal frame screens offer many advantages over wood frame screens. They are much stronger than wood when properly made, especially the corner joints. Our own corner joints are made stronger than the frame itself and give lasting satisfaction. The corner joints are described more in detail on the following page under screen construction.

Metal screens offer the advantage of a small size frame in both width and thickness, much stronger than it is possible to obtain in wood screens of the same area. The width and thickness is only one-half that of the ordinary wood screen.

They may be made for large opening, and with proper bracing may still be kept to small size in the frame sections.

The smaller metal frame section allows a greater area in the screen opening for light and ventilation, and makes a neater and more inconspicuous installation than the wider wood frame.

They are especially useful for twin sliding screens as the double thickness of the twin screens can be installed in the same space required by a single wood frame screen.

Watson Screens Made Under Our Own Patents

Watson metal screens are of the reinforced tubular type of construction constructed under our patents. We are the original patentees of the so-called "rewirable tubular metal frame construction." The frame section is made up of one piece and a groove holds the rewiring tube.

They are made in all the different types of screens in fixed, hinged and sliding types.

Use of Non-rusting Metals in Frame Screens

When it is desired to assure the longest life to metal screens, these frames are made of non-rusting metals. The standard metal of this character is bronze, and we recommend its use. There are, however, cases, such as being exposed to salt spray, etc., where bronze will corrode. Under such conditions we recommend the use of monel or ambrac as being more lasting, though more expensive.

Nickel and Its Alloys—Alloys of nickel and copper, of which monel metal and ambrac are examples, are suggested as of greater

durability than bronze. These metals can be furnished on special order and at varying prices, all higher than bronze. As bronze is sufficiently durable and entirely satisfactory in most localities, their use cannot be urged, except under conditions of exceptional exposure.

Aluminum Screens—While we furnish aluminum frame screens and recognize the qualities of aluminum under proper condition of usage, we recommend bronze screens. Aluminum is difficult of fabrication, is not adapted to various metal finishes, and is usually furnished in the natural color of the metal.

Bronze Frame Screens (Rustproof)

The frames, as well as the hardware, construction parts and wire cloth are of commercial bronze and, not containing steel or iron, do not and cannot rust. Bronze screens cost slightly more than steel but the difference is more than made up in the durability and the fact that no future painting or finishing is required. Bronze screens may be left exposed to the weather throughout the year if desired. We recommend they be left in the unfinished natural bronze as manufactured, which eventually takes a statuary bronze color, but can be finished in any of the various bronze, brass or copper finishes.

Steel Frame Screen—These are of the very highest grade of materials and workmanship. They are manufactured from a special quality copper bearing, open hearth steel, coated with a mixture of lead and tin. After fabrication the entire frame is electro-galvanized by the hot cyanide process to give further rust-resisting protection.

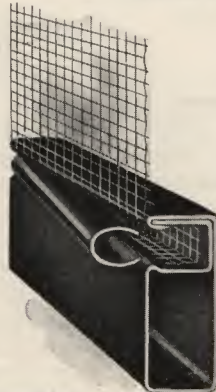
Finish—The frames are finished with pyroxylin lacquer (Duco or equal) in any color, or grained to match selected woods.

We know of no better measures for the protection of steel. Steel frame screens should be refinished occasionally as conditions require.

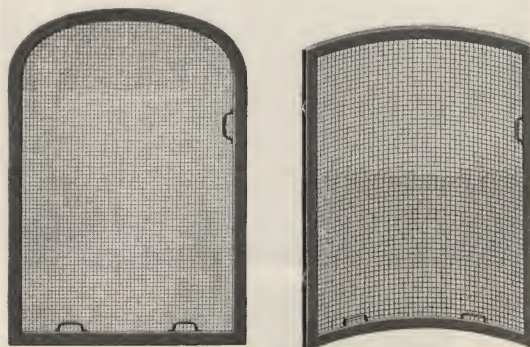
Wire Cloth—We use 16 mesh, commercial bronze wire cloth (specification of the American Society for Testing Materials) which is generally accepted as standard and is giving general satisfaction.

Special Shapes and Bent Work

All curved and bent work retain a perfectly smooth surface without crimping or distortions. Any shape, no matter how peculiar, is successfully made—screens with rounded tops, oval shapes, circular, cage screens, screens with bow shape—all are as practical and strong as shapes with straight sides and square corners.



Full Size Section of Metal Frame Screen



Types of Irregular Shaped Metal Frame Screens

CONSTRUCTION OF WATSON METAL FRAME SCREENS

Rigid Tubular Construction

The special features of our tubular frame construction are illustrated below. The solid tube has great strength, stiffness and rigidity, which cannot be obtained in a section which is simply bent up. The metal is so distributed that it gives the greatest strength where needed. The bottom and wiring side of the groove have double thickness of metal and at the rounded wiring edge, three thicknesses. The rounded edge prevents cutting of the cloth. The double walls of the groove are either brazed or welded together which gives extra strength to take up the strain of wiring and prevents twisting of the frame.

Two Types of Metal Frame Screens

"Twentieth Century" Screen (in Bronze or Steel)—Is so made and reinforced at the corner that the corner is actually stronger than the frame itself. The solid web channel reinforcement cannot be split as an ordinary channel reinforcement will split. The reinforcement is shown in the illustration below. After assembling, the corner reinforcement is sweated to the outside frame.

"Efficiency" Screen (in Steel Only)—Has the same section as the "Twentieth Century" but is made in steel and is a welded construction. This is a high grade, sturdy screen.

Method of Attaching and Renewing Wire Cloth

16 mesh commercial bronze wire cloth is standard. The wire cloth is stretched over the rounded

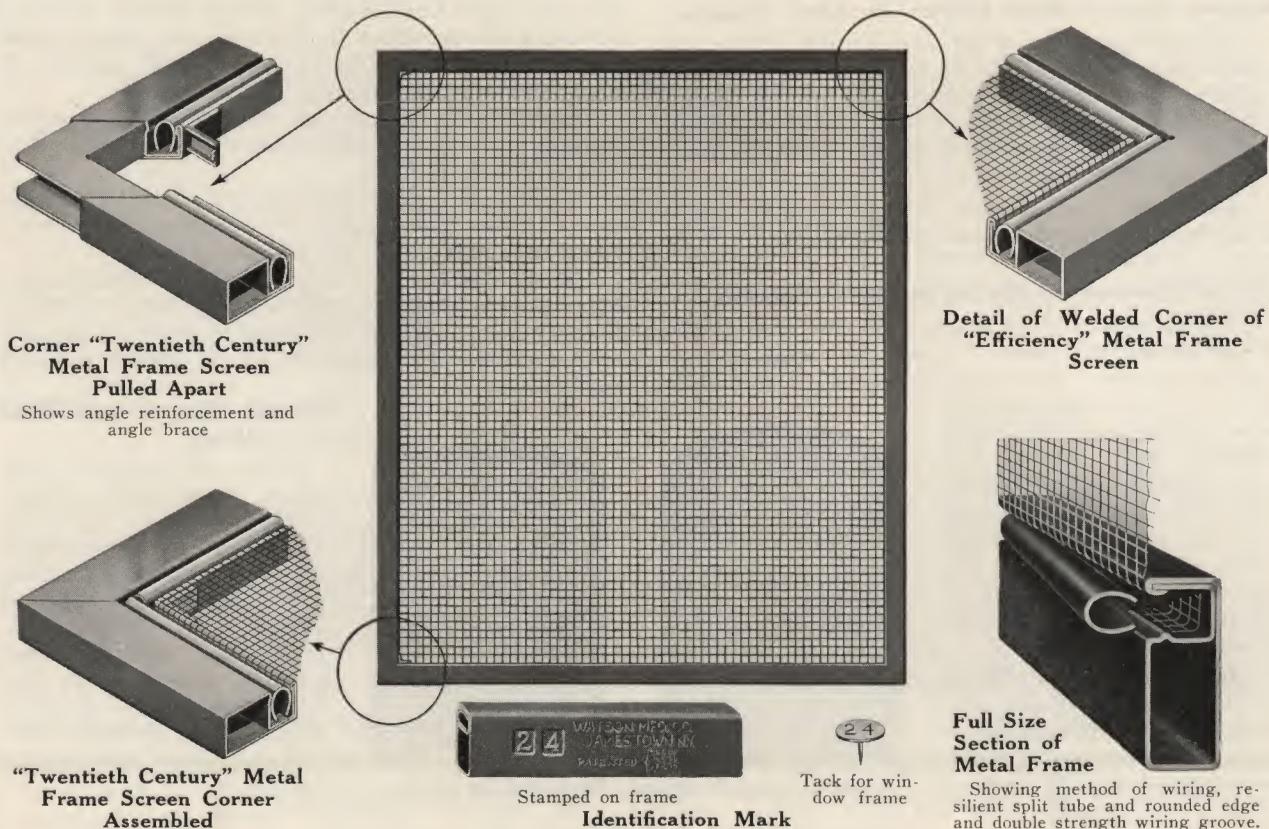
edge of the groove and when the resilient slotted tube is forced into the groove every strand of wire cloth is securely locked in place. Particular attention is called to the double thick wall and the rounded edge of the groove, which will not cut the cloth.

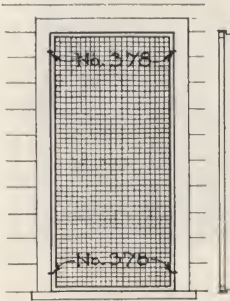
Replacement of the Wire Cloth—If necessary, this is easily accomplished by removing the resilient slotted tube, replacing the old cloth and again forcing the tubes into the grooves. There being no other fastenings, the work is quickly accomplished without special tools.

Application to Window Openings and Hardware

Screens may be sliding, covering part of the window; or full sized covering the whole window. Our sliding screens are provided with grooved edges having a shallow groove on one edge and deep groove with springs on the opposite edge. Regular slides are wood with bronze metal caps, the wood allowing for fitting. This makes a neat installation allowing the screens to fit close to the sash. We can also furnish, when required, various channel guides and other forms of single and double bead metal guides as shown on page 15. Screens have square edges when channel guides are used.

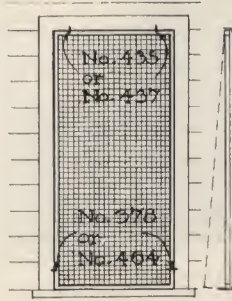
Identification—Is provided whereby the screens may be readily placed in the proper openings. Each screen has a permanent number stamped in the frame and a corresponding number tack is applied to the window frame.





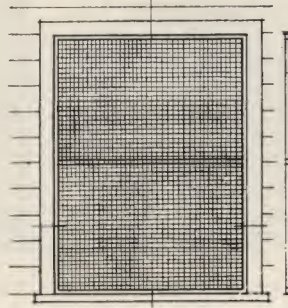
FIXED SCREEN
FULL HEIGHT

2 Spring bolts
No. 378 (use 4
bolts if screen
is more than
42" high), or
4 or less hooks
and eyes.
Note:- Half height
stationary screen
may be used.

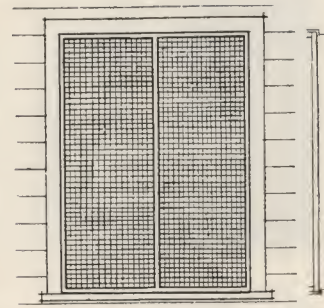


TOP HUNG
FULL HEIGHT

Top hangers
No. 435-437-442
(used with metal
screens). Top
hangers No. 430
or 433 (used with
wood screens).
Spring bolt No. 378
or hooks and eyes.



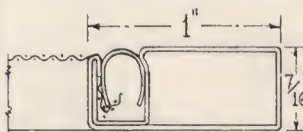
EXTRA HIGH SCREEN
WITH HORIZONTAL
BRACE FOR ANY TYPE
OF FULL HEIGHT
SCREEN



EXTRA HIGH SCREEN
WITH VERTICAL BRACE
FOR ANY TYPE OF FULL
HEIGHT SCREEN

BRACING RULES FOR METAL FRAME SCREENS

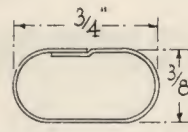
WIDTH OF BRACE	HORIZONTAL BRACE	VERTICAL BRACE
1"	34 inches high	50 inches wide
1 1/2"	66 " "	60 " "
2"	84 " "	72 " "



F.S. STILES & RAILS
FOR ALL
ORDINARY SIZE SCREENS
No. 271



EXTRA WIDE SECTIONS
No. 272 - A = 1 1/2"
No. 273 - A = 2"
Used for very large screens
or where extra width is desired



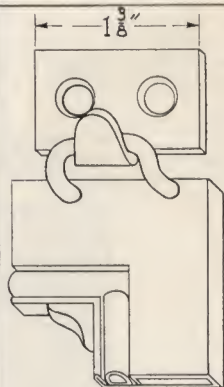
No. 5
ROUND EDGE BRACE
REGULARLY USED



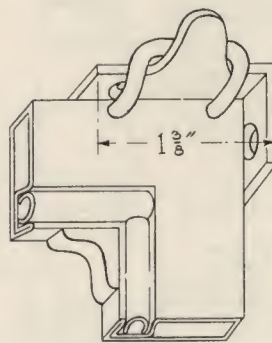
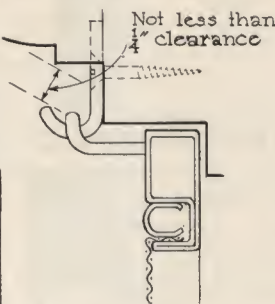
SPECIAL WIRING CROSS BRACES
No. 290 - A = 1"
No. 291 - A = 1 1/2"
No. 292 - A = 2"

FULL SIZE SECTIONS OF STILES & RAILS

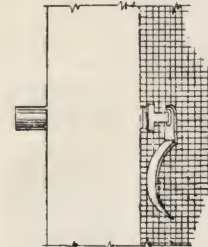
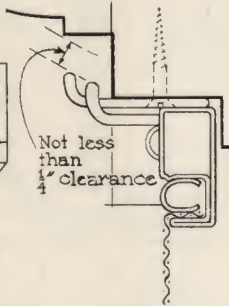
FULL SIZE SECTIONS
OF STANDARD & SPECIAL BRACES



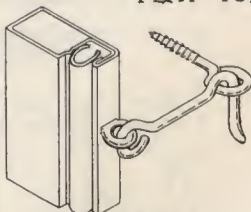
NO. 435
FLAT TOP HANGER



NO. 437
ANGLE TOP HANGER



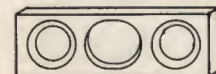
NO. 378
SPRING BOLT
Regularly used



NO. 464
HOOK & EYE

NOTES REGARDING FIXED & TOP HUNG SCREENS

Where awnings or window boxes are
used we suggest the use of half height
sliding or twin sliding screens instead
of full height screens, so that awning
ropes and window boxes are accessible.



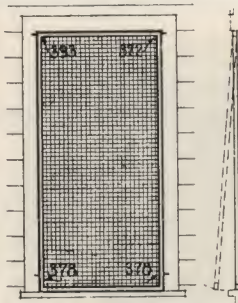
NO. 202
STRAIGHT KEEPER
Regularly furnished
with plain bolt NO. 378

WATSON
MANUFACTURING
COMPANY

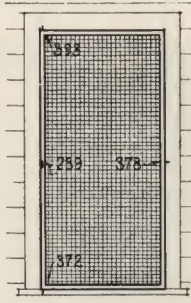
DETAILS OF FIXED AND TOP HUNG METAL
SCREENS FOR WINDOWS & PORCHES

SCALE
FULL SIZE
DATE NOV. 29

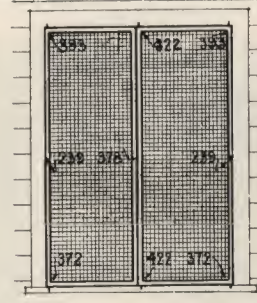
DRWG
6



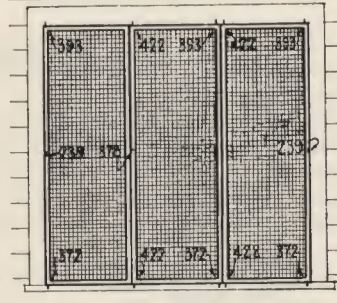
TOP PIVOTED



SIDE HUNG



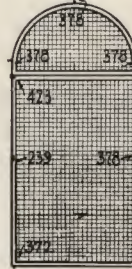
DOUBLE CASEMENT (Side Hung)



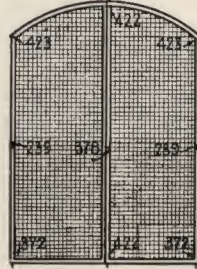
TRIPLE CASEMENT (Side Hung)



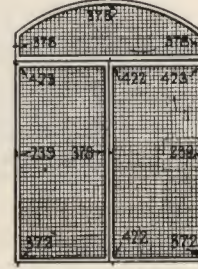
CIRCULAR HEAD
(Side Hung)



CIRCULAR HEAD-FIXED TRAN/OM
(Side Hung Casement)

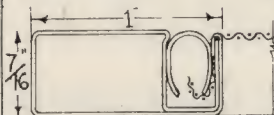


SEGMENTAL HEAD
(Side Hung)

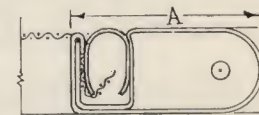


SEGMENTAL HEAD FIXED
(Side Hung Casement)

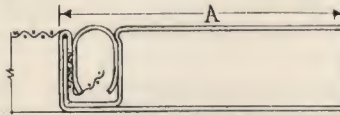
ELEVATION/ OF
VARIOUS TYPE/ OF
CASEMENT
SCREEN/ SHOWING
HARDWARE USED
WITH EACH TYPE



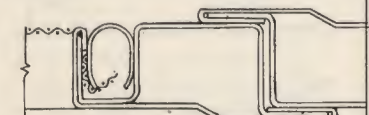
No. 271.
STRAIGHT SIDE,
FOR BOLT



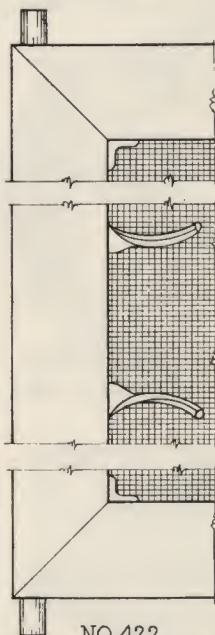
No. 280-A-1". No. 281-A-1 1/2".
PIVOTED SIDE
OR TOP SECTION



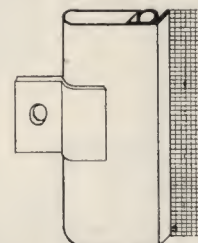
No. 272-A-1 1/2". No. 273-A-2"
SPECIAL WIDE SECTION
FOR LARGE SCREEN/



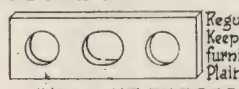
ASTRAGAL FOR DOUBLE
CASEMENT (Side Hung)



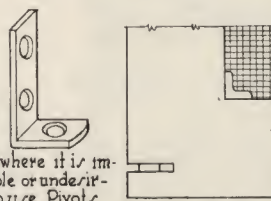
No. 422
TOP & BOTTOM BOLT



No. 215
NO. 239/TRAP HINGE
ANGLE KEEPER



No. 202
STRAIGHT KEEPER



Used where it is im-
possible or underir-
able to use Pivot.
No. 393 & 372

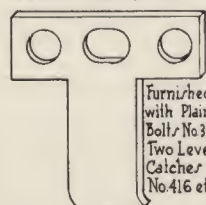
No. 423
ENCLO/ED PIVOT



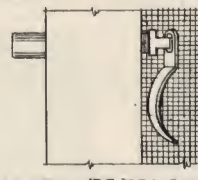
Regular
Keeper
furnis/ed
with Top
& Bottom
Hinges
No. 393 & 372



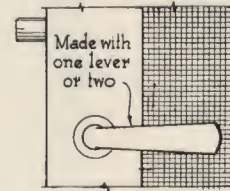
SECTION AT
FIXED TRAN/OM



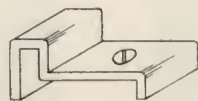
No. 214
LIPPED KEEPER



No. 378 SPRING BOLT



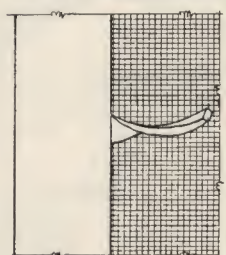
No. 416
LEVER PLAIN BOLT



No. 766
RABBETED
METAL STOP



No. 393 Top Pivot
Stationary



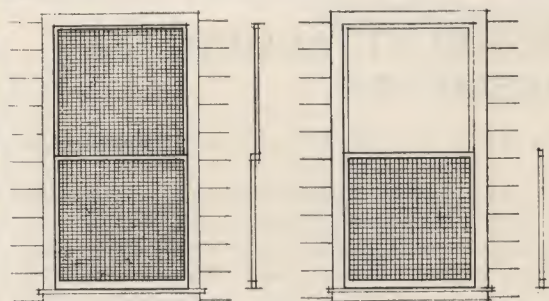
No. 372 Bottom Pivot
(Movable, operated
by Lever)

No. 372
BOTTOM PIVOT

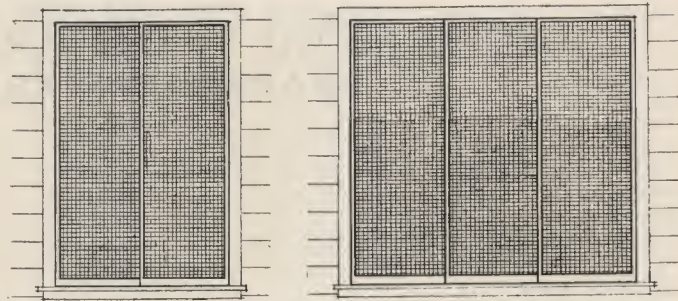
WATSON
MANUFACTURING
COMPANY

DETAILS OF CASEMENT TYPE SCREENS IN
TOP AND TOP & BOTTOM PIVOTED SCREENS

NOT DRAWN DRWG
TO SCALE
DATE: NOV:29 7



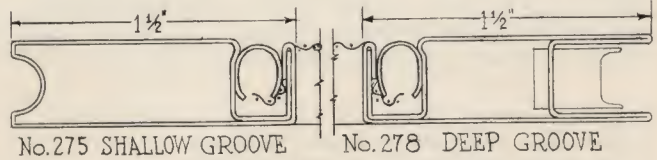
VERTICAL DOUBLE SLIDE VERTICAL SINGLE SLIDE



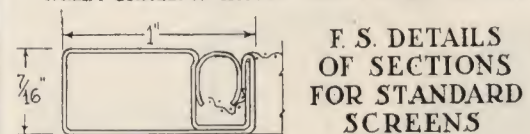
HORIZONTAL DOUBLE SLIDE HORIZONTAL TRIPLE SLIDE



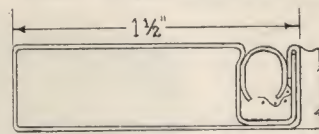
No. 274 SHALLOW GROOVE No. 277 DEEP GROOVE



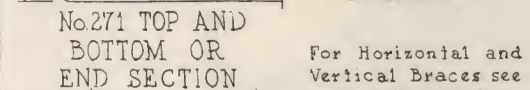
No. 275 SHALLOW GROOVE No. 278 DEEP GROOVE



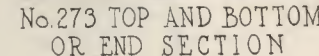
F. S. DETAILS OF SECTIONS FOR STANDARD SCREENS



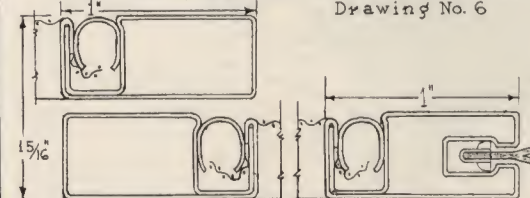
F. S. DETAILS OF SECTIONS FOR EXTRA LARGE SCREENS



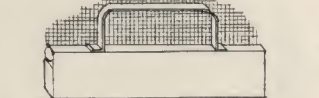
No. 271 TOP AND BOTTOM OR END SECTION



No. 273 TOP AND BOTTOM OR END SECTION



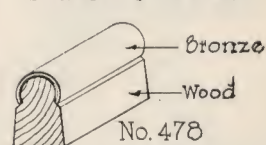
MEETING STILES FOR MULTIPLE SLIDING SCREENS No. 235 SPECIAL SECTION FOR USE AGAINST PLASTER OR STUCCO JAMBS



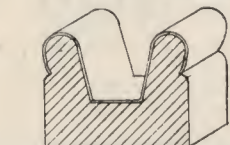
No. 517 LIFT FOR METAL FRAME SCREENS



SPECIAL ROLLERS FOR HORIZONTAL SLIDING SCREENS. BALL BEARING FOR 1 1/2" FRAME, PLAIN IN 1" FRAME.



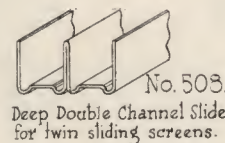
No. 478 REGULAR BRONZE CAPPED SLIDE



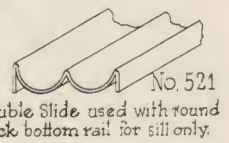
No. 486 REGULAR BRONZE CAPPED SLIDE FOR WOOD OR METAL SCREENS



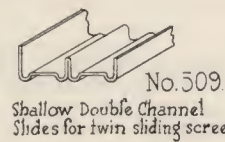
No. 469 BRONZE SLIDE FOR USE ON SILLS



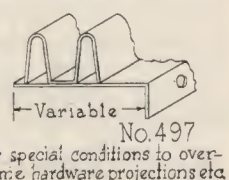
No. 508 Deep Double Channel Slides for twin sliding screens.



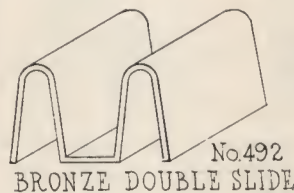
No. 521 Double Slide used with round back bottom rail for sill only.



No. 509 Shallow Double Channel Slides for twin sliding screens.

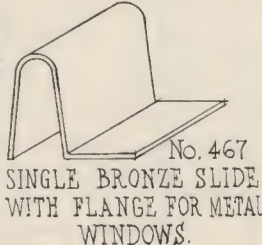


No. 497 Variable For special conditions to overcome hardware projections etc.



No. 492 BRONZE DOUBLE SLIDE

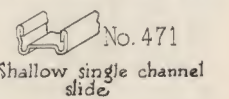
F. S. SECTION OF REGULAR SLIDES



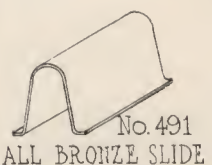
No. 467 SINGLE BRONZE SLIDE WITH FLANGE FOR METAL WINDOWS.



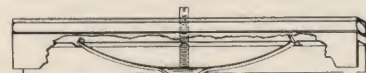
No. 511 Safety Guard used in connection with Channel Slides No. 471 & 509



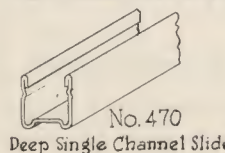
No. 471 Shallow single channel slide



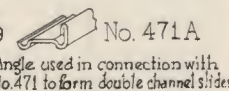
No. 491 ALL BRONZE SLIDE



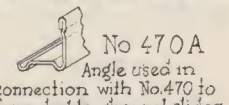
No. 512 for 1" No. 513 for 1 1/2" FRAMES LOCKING SCREW FOR METAL FRAME SCREENS PREVENTS FALLING OUT



No. 470 Deep Single Channel Slide



No. 471A Angle used in connection with No. 471 to form double channel slides



No. 470A Angle used in connection with No. 470 to form double channel slides

HALF FULL SIZE DETAIL OF SPECIAL GUIDE WHICH CAN BE SUPPLIED IF REQUIRED.

WATSON MANUFACTURING COMPANY

DETAILS OF HALF & FULL OPENING VERTICAL SLIDING & MULTIPLE HORIZONTAL SLIDING SCREENS

SCALE: F.S. & 6" DWG
EQUALS 1'-0"
DATE: NOV. '29

8

WATSON METAL FRAME SCREENS FOR ATTACHING TO FRAMES OF STEEL CASEMENTS

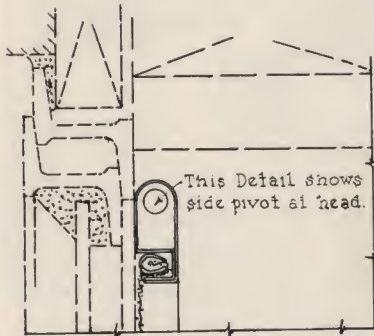
There are a great many different methods of screening window openings having steel casements. The type of screen depends on whether plain lever fastener, or any of the various styles of exposed or concealed operating hardware are used. It is also varied by the window frame construction, as well as the type of curtains, draperies, etc.

Under some conditions the screens may be fastened directly to the steel sash frame with some one of the various forms of bolts, spring catches, etc., to hold the screen in place. Specially constructed covers are often used to conceal the oper-

ating hardware at the sill and to support the screen.

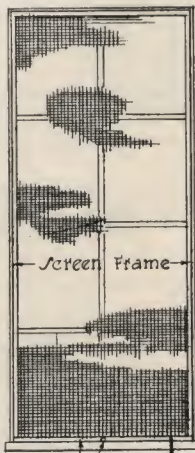
There are so many conditions that only a few, as suggested below, can be shown. Our Engineering Department will gladly assist in working out appropriate details for any case. Screens may be hung at the top or either side to cover the full opening or part of the opening, or may be double. The construction of these screens is the same as our other metal frames, the variation being principally in the hardware used under special conditions.

There are various methods & Types of hardware other than that shown for securing screen to steel frame.

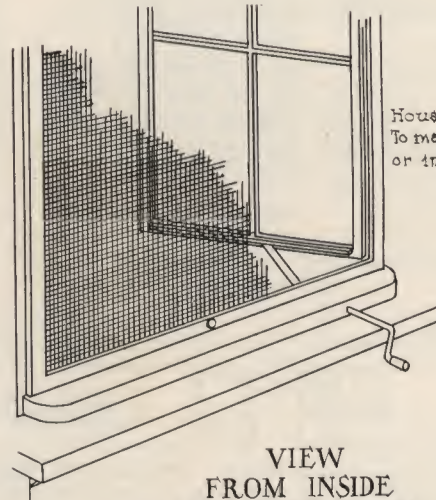


Various other methods of hanging may be used.

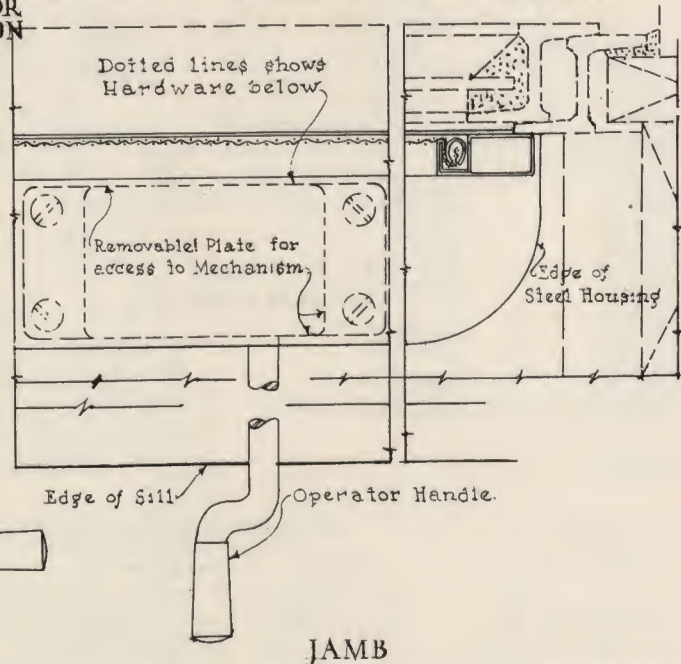
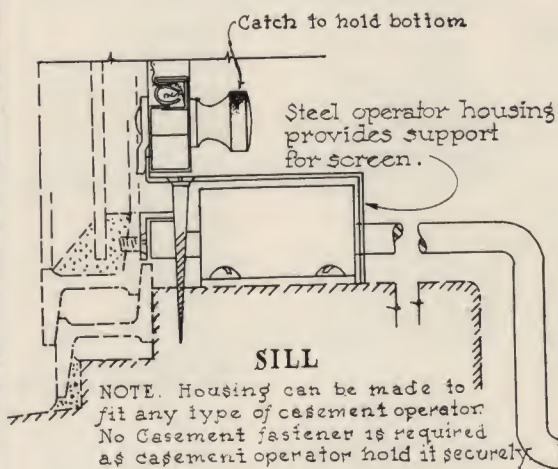
HEAD



INTERIOR
ELEVATION



VIEW
FROM INSIDE
SHOWING STEEL
HOUSING FOR OPERATOR



METHODS OF INSTALLING METAL FRAME SCREENS
DIRECTLY TO FRAME OF STANDARD STEEL CASEMENTS

DRWG
9

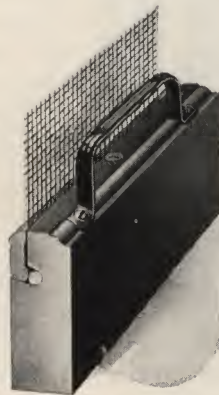
WATSON WOOD FRAME SCREENS

We manufacture a complete line of wood frame insect screens of all styles, sizes and shapes. The material is invariably the best and is thoroughly seasoned and kiln dried. All framework is properly proportioned in thickness and width to insure the best appearance and necessary strength for service. Wood frame screens are usually soft pine, finished with the best quality of pyroxylin lacquer (Duco or equal) in any color required. We also make wood frame screens of any fine wood finished in natural or stained colors to match adjoining woodwork.

Corner Construction—In our corner construction we employ hardwood dowels, the rail being cope-cut to fit the moulding of the stile, providing a maximum gluing surface, in addition to the extensive gluing surface provided by the dowels. We use waterproof glue, therefore our corners are not subject to injury from water. This construction has demonstrated its superiority by tests and practical experience.

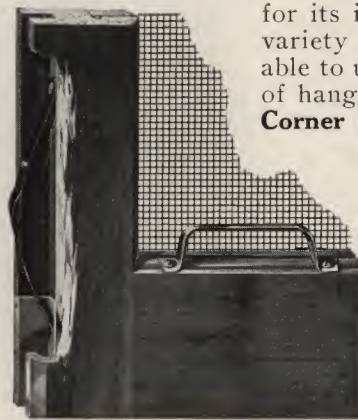
Fastening Wire Cloth

The wire cloth is fastened by a groove and spline method shown in the illustration. The groove is placed to insure maximum strength of material. The wire cloth is held firmly in place by a rattan spline and is further held by a neat moulding, mitred



Section Through Wood Frame

Shows method of attaching wire cloth



Corner of Wood Screen

Shows hardware and groove, also metal corner reinforcement supplied on special order

and held in place by brass brads.

Finishing—We are prepared to make any finish required, but, in order to correctly interpret the general appearance of finished work, samples of generous size should be furnished.

We recommend that the finishing of wood screen work be included in the general finishing contract, the screens being shipped from the factory primed or partly finished. This would insure screen finishing identically the same as the balance of the building.

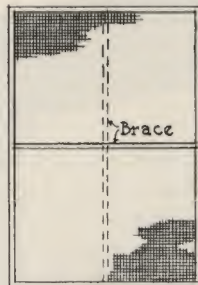
Identification—Identification of each screen with its proper opening is provided by duplicate numbering tacks, one being placed on the screen frame and the other on the window frame.

Hardware—We furnish, with every screen, brass or bronze hardware suitable for its installation. A considerable variety of special hardware applicable to usual and special conditions of hanging is provided.

Corner Reinforcement—The illustration of the corner in addition to showing the usual construction lifts, grooves and springs employed in regular sliding screens, shows a metal corner reinforcement which is furnished on special order and is a desirable addition to wood screens. It strengthens the corners and provides a metal wearing surface on the screen slides.



STANDARD STATIONARY TOP HUNG OR HINGED SCREENS

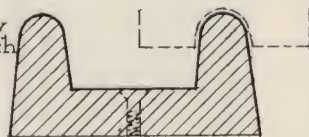


WIDE OR HIGH SCREENS SHOWING EITHER VERTICAL OR HORIZONTAL BRACE



Metal Slides may also be used with wood screens. See Drawg. No.

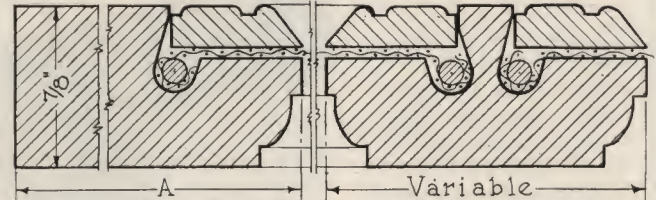
No. 472
Regular Slides used with $\frac{1}{8}$ " Single Sliding Wood Screens.



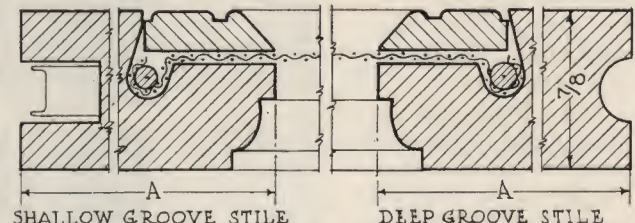
No. 474
For Twin $\frac{1}{8}$ " Wood Screens. Attached to window frame by wood or machine screws.

STANDARD WOOD SLIDES REGULARLY USED FOR SINGLE AND TWIN SLIDING WOOD SCREENS

NOTE. WE MAKE A WIDE VARIETY OF HARDWARE FOR WOOD SCREENS WHICH IS NOT ILLUSTRATED



STANDARD STILE & RAIL
SECTIONS—STATIONARY, TOP HUNG & HINGED WOOD SCREENS



SHALLOW GROOVE STILE
DEEP GROOVE STILE
HORIZONTAL SECTIONS OF SLIDING WOOD SCREENS

TABLE OF DIMENSIONS FOR ALL SCREENS

SIZE OF SCREEN		STILES	TOP RAIL	BOTTOM RAIL	WOOD OR IRON BRACE Required for Screens more than 60" wide or high.
WIDTH	HEIGHT	Dim. "A"	Dim. "A"	Dim. "A"	
To 48"	To 48"	1 $\frac{3}{4}$ "	1 $\frac{3}{4}$ "	2 $\frac{1}{4}$ "	
48" to 72"	48" to 72"	2"	2"	2 $\frac{1}{2}$ "	
72" or more	72" or more	2 $\frac{1}{4}$ "	2 $\frac{1}{4}$ "	2 $\frac{3}{4}$ "	

FULL SIZE DETAILS OF WATSON WOOD FRAME SCREENS (10)

WATSON ROLL SCREENS

Three Different Roll Screens Made in Two Different Types

Experience of Over a Quarter Century

We believe we are the oldest manufacturers of roll screens. All of our long experience has been embodied in our present roll screen construction, many features of which are patented and used only by us. We invite comparison of construction and mechanical features with any other roll screen.

The "Twentieth Century"—Has been well known to architects for years. It is operated manually, and operating bar will stay at any desired height when released. It is further described on page 19.

The "Efficiency Type B"—Is the highest grade, medium priced, spring roller type of screen, of best quality materials with ball bearing and other special construction features described on page 28.

The "Efficiency Type C"—Is similar to Type B but costs less. The materials are the same, except as hereinafter described on page 20.

Advantages of Roll Screens

The idea of a roll screen is undeniably attractive, especially when used with outward opening casements. They undoubtedly answer certain conditions very well and if given care and are handled properly, will last for years.

They have the following meritorious features:

(1) They are always present in the window for use when required. As it is not necessary to remove and store them, they require no labor or storage space.

(2) They operate up and down without interfering with interior decorations.

(3) No special sash hardware is required.



Some of Their Disadvantages

We are manufacturers of all types of screens and are not prejudiced for or against any type. Our interest is in supplying the purchaser with the proper screens, which will fulfill the conditions and give *long and satisfactory service*. In considering the advantages of roll screens, attention should also be given to the following disadvantages.

(1) Eventual fracturing of the wire cloth by continual rolling and straightening, depending upon the frequency of the operation, the kind of cloth, and whether there are obstructions in rolling, to create concentrated bending or to otherwise injure the wire cloth.

(2) Wire cloth cannot be drawn tightly across the opening, and attempts to accomplish this result in mutilating and fracturing the edges of the cloth.

(3) The necessity of having to raise the screen to return the wire cloth to the side guides, after being pulled out, cuts the selvage, resulting in an irreparable fracture.

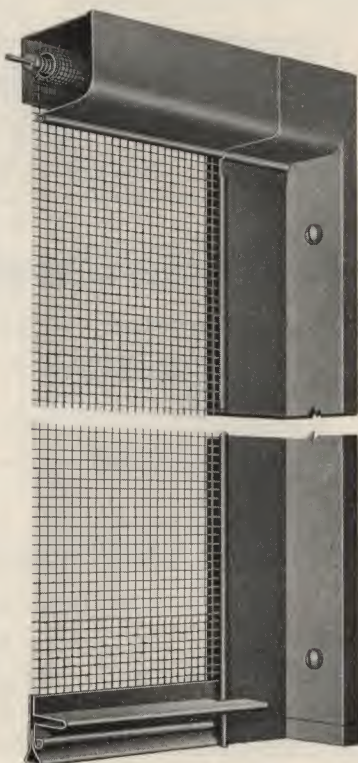
(4) Moisture, dirt, flies and insects of all kinds are rolled up into the case.

(5) The construction requires many operating parts and unless made in the very best manner will result in frequent repairs and replacements.

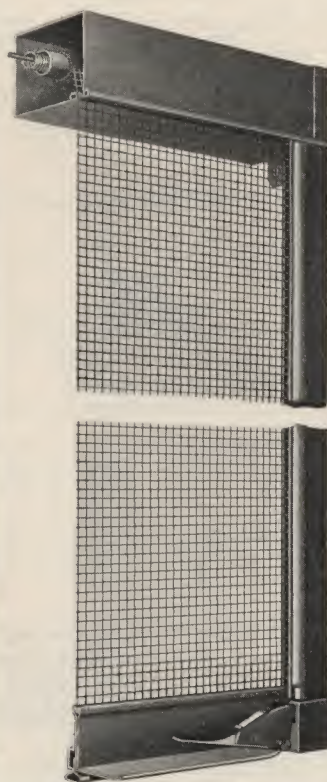
Watson Roll Screen Principles

In designing our roll screen, the above disadvantages have been eliminated as far as possible. In our construction all material and parts are of the very best of their kind and are more fully described hereinafter.

Our wire cloth is not held tightly at the edges, but enters a groove a sufficient depth so that, under ordinary conditions, it will not come out. If it does it is readily put back without damaging the cloth.



"Twentieth Century" Roll Screen



"Efficiency" Roll Screen, Types B and C

WATSON "TWENTIETH CENTURY" ROLL SCREEN

Highest Quality Roll Screen Stays at Any Desired Height and Is Especially Desirable For Use with Either Outward or Inward Opening Casements

We believe "Twentieth Century" roll screens to be the oldest kind of roll screens now being manufactured, all previous attempts having resulted in failure.

Principle of Construction—

"Twentieth Century" roll screens are constructed on an entirely different principle from the many more recently promoted roll screens. They do not operate like a spring roller curtain, except that they roll up. Spring tension in these screens is utilized to hold the wire cloth tight, but not to raise the screen. Therefore lowering the screen is very easy in this type as the resistance of a spring roller does not have to be overcome. The screen will stay at any place at which it may be stopped in the window height without fastening.

The wire cloth runs in deep metal side guides and, if forced out of the guide at any point, is easily returned without raising the screen and without injuring the cloth.

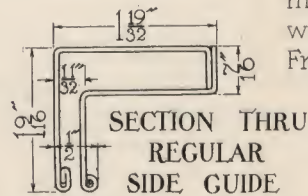
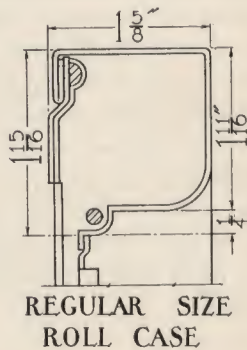
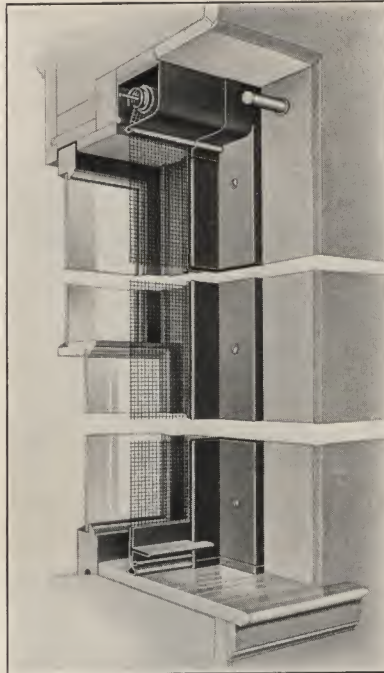
Construction—These screens are complete, the side guides, roll case and operating bar being

shipped completely assembled. The roll case is made in two sizes, one size for moderate sized windows and another for large windows. They are constructed as a result of exhaustive investigation and experience and no expense has been spared to make them as perfect as their inherent characteristics will permit. They are adjustable for unequal or unsymmetrical openings.

Materials and Finish—Steel roll screens are made of copper bearing, alloy coated, open hearth steel, electro galvanized after fabrication and finished in any color of pyroxylin lacquer or enameled or grained to imitate various woods. They may also be made in bronze in any of the different metal finishes.

Wire cloth is 16 mesh special weight bronze which rolls easily and smoothly.

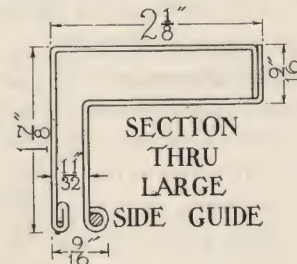
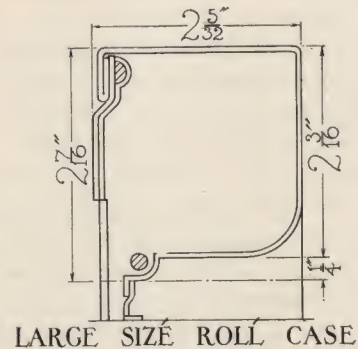
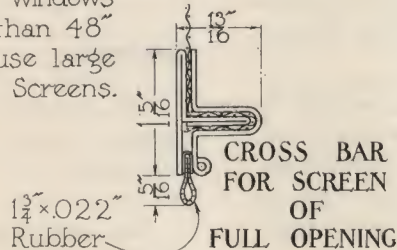
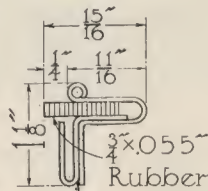
"Twentieth Century" roll screens may be installed exposed when no special preparation has been made, or concealed when the proper window construction is provided.



REGULAR SIZE
For windows up to 72" high & 48" wide.

LARGE SIZE
For windows up to 9'0" high & 60" wide.

ON HALF OPENING
For all windows more than 48" wide use large Frame Screens.



HALF FULL SIZE DETAILS OF "TWENTIETH CENTURY" ROLL SCREENS. (11)

WATSON "EFFICIENCY" ROLL SCREENS—TYPES B AND C

(Patents Pending)

High Grade Spring Roller Type Roll Screens Especially Adapted for Interior Use with Outward Opening Casements

"Efficiency" roll screens are made in two types, "B" and "C." These two types are practically the same in material and construction details with the exception of a few items of materials hereinafter referred to. The screens have been developed after exhaustive experimental work and careful consideration of the many details in connection with roll screen construction, use and application.

We wish to call the attention of architects to the following briefly described features of merit and advantages embodied in our construction. We also respectfully invite and recommend consideration of the same when specifications are being written.

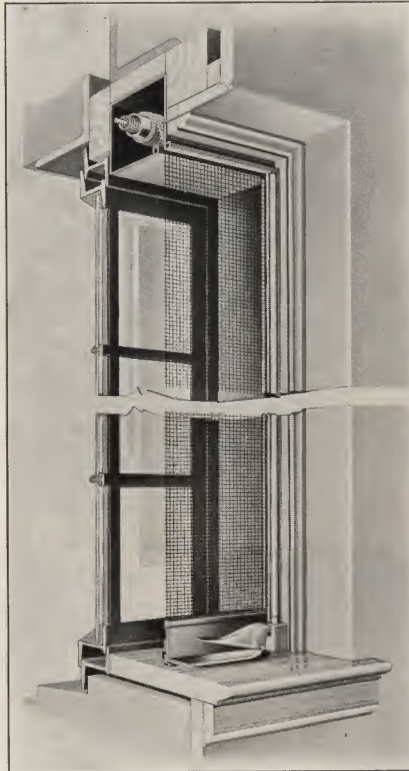
"Efficiency" Roll Screen Type "B"

This screen is our highest quality roll screen, of the spring roller type. The operation of the screen is on the principle of the ordinary spring roller. The wire cloth is attached to a roller mounted in a metal case. The roller contains a steel coiled spring of the highest grade, which is wound up to a sufficient tension to raise the screen. In the operation of lowering the screen, the spring is wound up and the screen is raised by the spring unwinding because of its tension. Theoretically, screens of this character would, when suddenly released at the bottom, raise rapidly into the roll case. Friction springs, however, are provided on the side to partially control the raising of the screen, so that it will stop at some point between the sill and the head. The tension may be varied, more or less, depending upon individual preference and a spring adjusting feature is provided for that purpose.

Controlled Operation—The screen is lowered by placing the finger tips on flange of operating bar, pushing it down to the sill, where it automatically locks. To raise the screen place the finger tips on flange of operating bar, then release the latch lever and the screen will raise slowly under perfect control, or will raise rapidly if the fingers are removed from the operating bar. When the screen is in its extreme raised position there is ample room for the fingers between the flange and head of trim.

Standard Width Screens

Watson "Efficiency" roll screens are made in standard widths, that is, each full inch, not less than 12 nor more than 61 in., and for various heights as required. Provision is made so that some one of the standard widths will fit any opening within the width range. The standard size roll case is 2½ in. square and is suitable for all heights of windows, even in some cases as high as 10 ft. A smaller case 2 in. square may be had on special order but is not recommended for high windows.



"Efficiency" Roll Screen Type "C"

The general details of construction and operation are similar to Type "B" except that it has plain bearings, "Galvanoid" wire cloth, roll case not galvanized and operating bar does not have the fabric strip.

We invite Comparison

All roll screens are fundamentally the same in that they roll, have bearings, operating bar, guides, wire cloth, etc. There is, however, a wide difference in the construction, which difference cannot be appreciated without comparison with others. There is no standard of excellence (quality), except by comparison. We therefore invite comparison. The claims, promises and guarantees of any manufacturer, including ourselves, should have little consideration unless they appear reasonable.

Guarantee

We guarantee Watson "Efficiency" Roll Screens against defects in workmanship and materials indefinitely.

We will gladly furnish new parts to replace any parts which fail by reason of such defects, when such defective parts are returned to us. We assume no responsibility for failure of any parts caused by abuse, natural wear or other causes beyond our control.

SPECIAL CONSTRUCTION FEATURES OF WATSON EFFICIENCY ROLL SCREENS TYPES "B" AND "C"

Symmetry and Accuracy

Every part of our screen construction is made with specially prepared dies and tools operated in heavy, efficient and modern machinery, the result being a screen perfect and accurate in size and contour.

Weight of Material

The weight of all material has been selected to give ample strength and rigidity for all normal requirements.

Solid Tubular Roll

The tube on which the wire cloth rolls has no open seam, therefore is very stiff and rigid. It is perfectly round, and revolves true and evenly.

Ball Bearings Type "B" and Plain Bearings Type "C"

The solid tubular roll, above described, operates on hardened steel ball bearings at each end, for Type "B", insuring extreme durability under the most severe operating conditions, also providing for easy and quiet operation.

Type "C" has accurately machined plain bearings of ample area.

Anti-friction End Bearings

Bronze anti-friction bearings are used at each end of the roll to prevent end friction and wearing of the roll case ends, assisting materially in the ease of operation and durability.

Non-binding Spring

The operating springs are best quality coiled spring steel, one end attached to axle and the other to roll. A sleeve, which absolutely prevents the spring from binding, insures easy operation no matter how large the screen.

Spring Adjustment and Spring Locking Device

The tension of the spring can very easily be adjusted tighter or looser, as required, without opening the roll case and with no other tool than a small screwdriver. A simple, effective and durable spring tension fastening, secure under all conditions, is provided at each end of the roll case, which, combined with the spring adjustment feature, provides easy adjustment.

Axle for Types "B" and "C"

Stationary axle is of round cold-rolled steel and extends the full length of the roll case, forming a stiff, rigid support, in Type "B" for the hardened steel ball bearings, which take the entire wear of operation, also provides fastening and support for the spring, preventing spring failure from distortion. Type "C" has only a plain axle bearing.

Roll Case

Our standard roll case is 2 $\frac{3}{4}$ in. square and the wire cloth operates through a slot in the bottom. The slot is formed and stiffened by square tubes, the edges of which are rounded, preventing injury to the wire cloth, as it is operated over them.

Note: A 2-in. roll case is furnished on special order but is not recommended for large windows.

Type "B"—Roll case and operating bar are copper bearing, alloy coated, open hearth steel, galvanized by the hot cyanide electro-galvanizing process

after all operations of cutting, bending, forming, etc., are completed, therefore there are no raw cut edges or injury to the galvanized coating.

Type "C"—Roll case and operating bar are same as for Type "B" except hot cyanide galvanized is omitted.

Bronze Roll Case and Operating Bar and Guides

When required, the roll case and operating bar will be made of Anaconda bronze and, if desired, may be finished in any metal finish.

Operating Bar

The operating bar is constructed of heavy material having a substantial angle turned in at the bottom, forming a pull to receive the fingers in the operation of the screen. The shapes as used form a rigid, straight operating bar.

Automatic Catch

An automatic spring catch is provided at each end of the operating bar engaging the guide shoe securely holding the operating bar in its lowered position against the sill, and does not in any way mutilate the window sills. It is easily released by a slight pressure on the latch lever.

Non-Binding Operating Bar Guide

To prevent accidental or intentional removal of the operating bar by tilting, it is provided at each end with a rounded projection which not only prevents the ends of the operating bar from being removed, but also assists in keeping the wire cloth in the grooves.

Fabric Cushion Strips

A bronze-bound fabric cushion strip is inserted in the bottom of the operating bar to protect the window stool and to close any possible light line in the Type "B" screen, but is omitted in Type "C" screen.

Metal Guides for Types "B" and "C"

Are cold rolled electro-galvanized steel, formed straight and symmetrical, with edges rolled, affording double strength and smoothness of operation. Top ends have pins for proper alignment with roll case. Bottom is supported by the guide shoe.

Bronze Wire Cloth Used for Type "B"

Regular weight (.01125-in. wire) 16-mesh Anaconda bronze wire cloth adopted as standard. It is hard drawn, resilient and of high tensile strength, with heavily reinforced selvage edges.

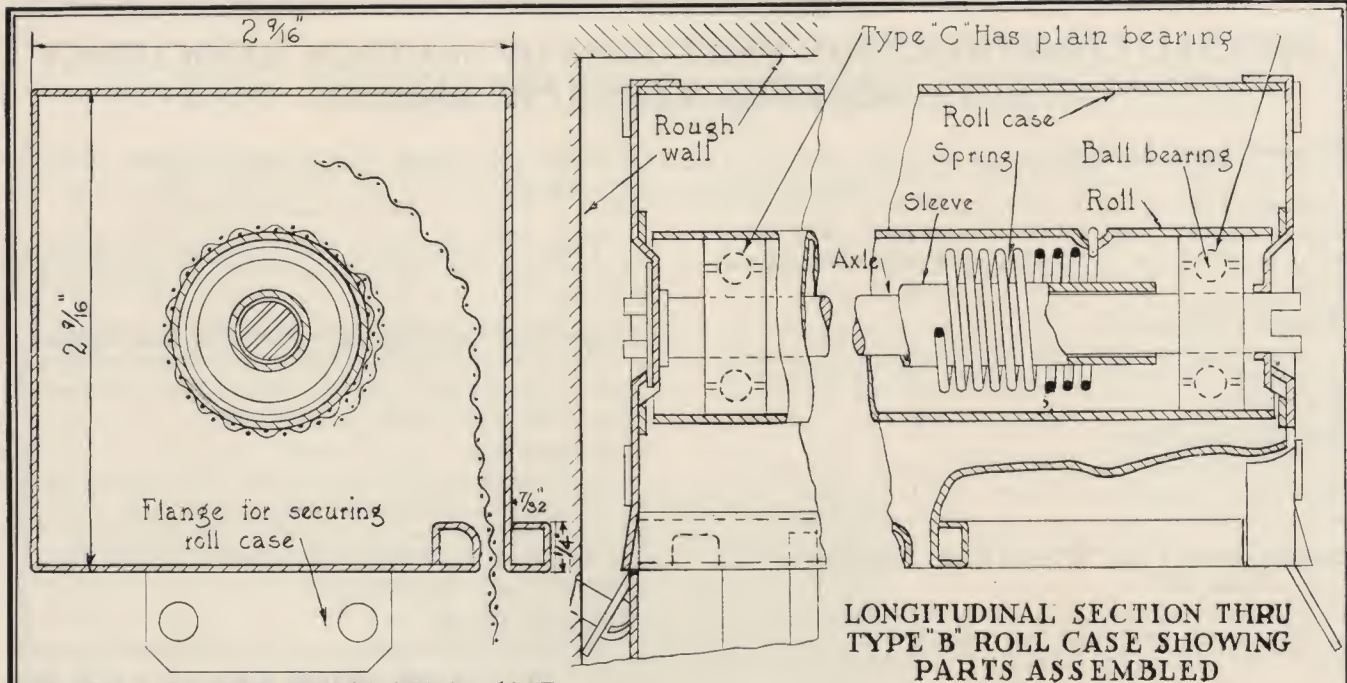
Our construction permits the wire cloth to extend into guide grooves nearly 1 in.

"Galvanoid" Wire Cloth Used for Type "C" Screen

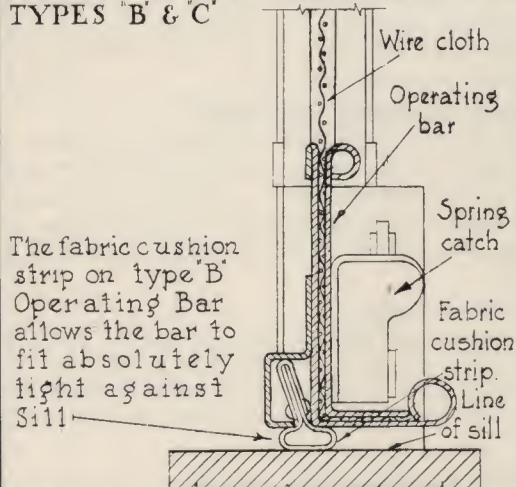
This is an electro-galvanized steel wire cloth the same as is manufactured and sold under various trade names, i.e., "Alumina," "Gray-Wick," "Opal," "Apex," etc.

Fastening Wire Cloth

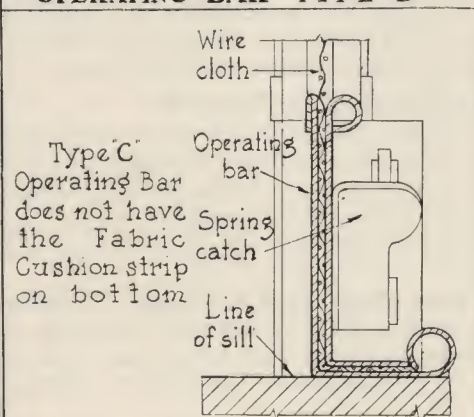
Each strand of wire cloth, particularly the reinforced selvage edge, is firmly attached to the roll and operating bar. This is very important to insure durability and easy, smooth operation. If the fastening does not extend to the edge, the reinforced selvage has no support and is of no advantage.



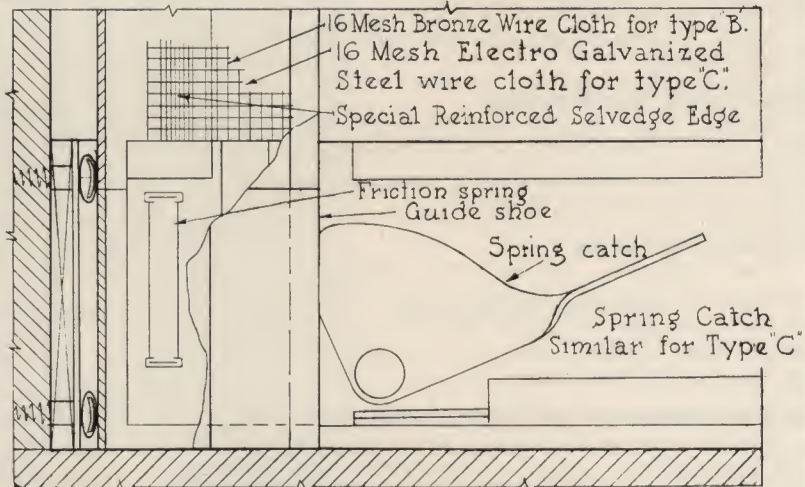
CROSS SECTION THRU ROLL CASE
TYPES "B" & "C"



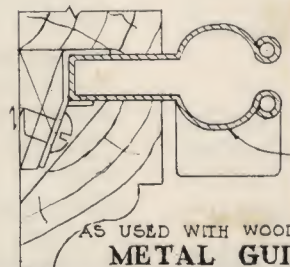
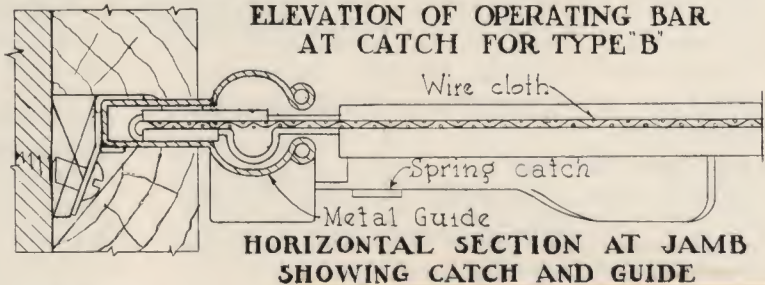
VERTICAL SECTION THROUGH
OPERATING BAR TYPE "B"



VERTICAL SECTION THROUGH
OPERATING BAR - TYPE C



ELEVATION OF OPERATING BAR
AT CATCH FOR TYPE "B"

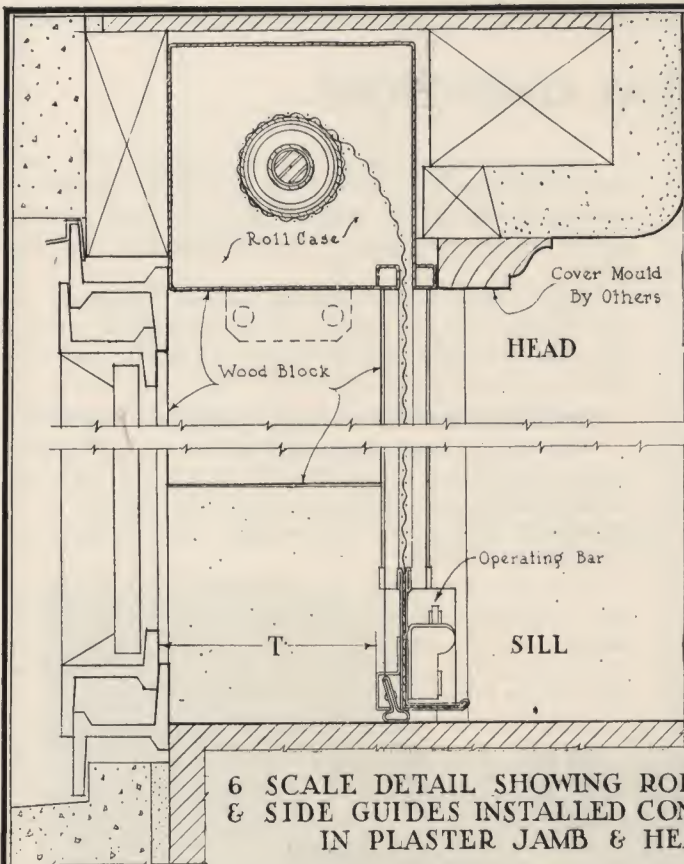


DETAILS OF PLASTER JAMB
CONSTRUCTION WILL BE
FURNISHED ON REQUEST.

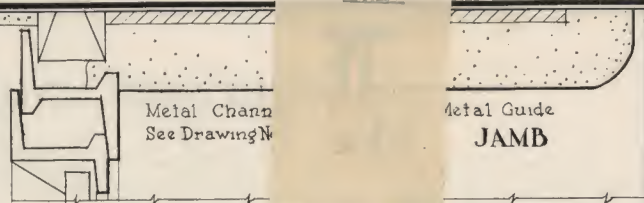
WATSON
MANUFACTURING
COMPANY

DETAILS OF WATSON EFFICIENCY
ROLL SCREENS - TYPES B & C

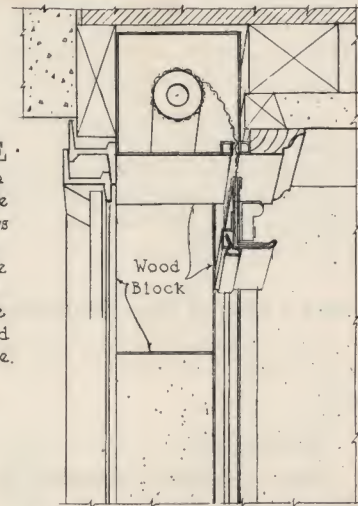
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FULL SIZE
DATE: JAN. '30 12



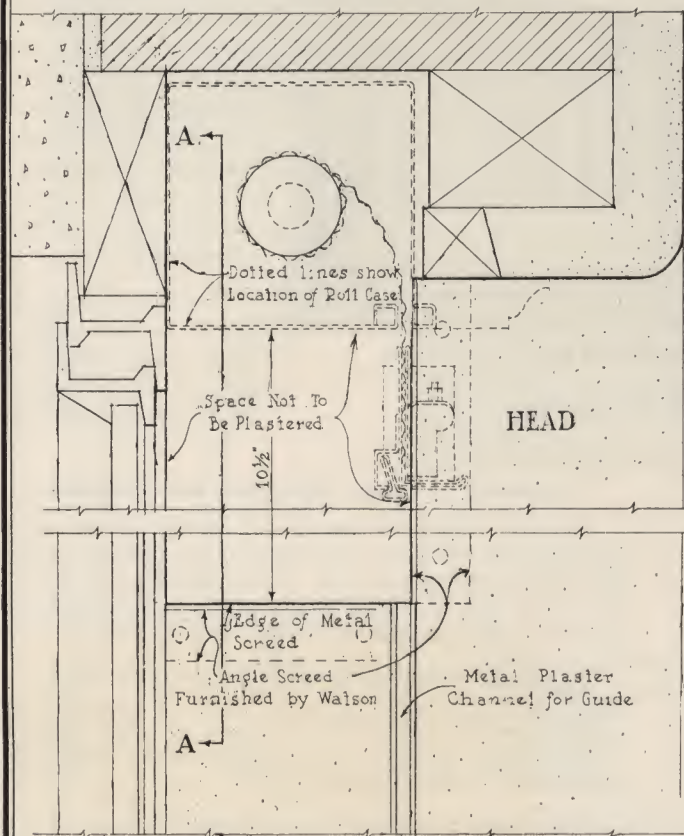
6 SCALE DETAIL SHOWING ROLL CASE & SIDE GUIDES INSTALLED CONCEALED IN PLASTER JAMB & HEAD



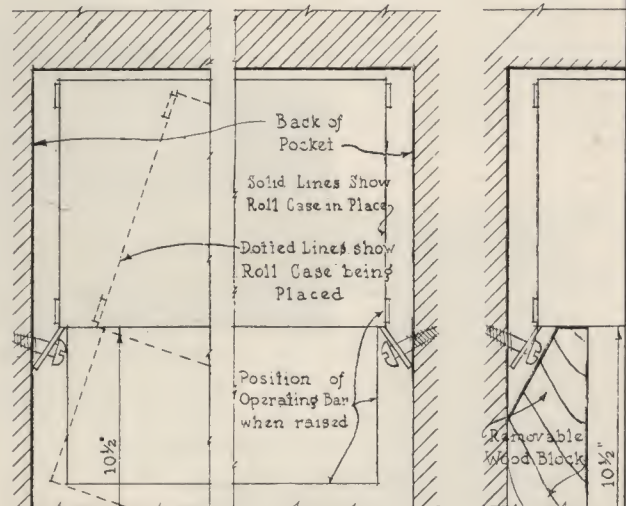
IMPORTANT NOTE
The Distance "T" Between the face of Sash and face of the Operating bar allows sufficient clearance for ordinary sash hardware but should be checked with the hardware selected and detailed for proper clearance.



PERSPECTIVE LOOKING UP INTO TOP OF JAMB SHOWING POSITION OF WOOD BLOCK



6 SCALE DETAIL SHOWING POCKET AT TOP OF EACH JAMB TO ALLOW ROLL CASE TO BE INSTALLED



VERTICAL SECTION ON LINE A-A THRU JAMB SHOWING HOW HEAD OF SCREEN IS SLIPPED INTO POCKETS AT TOP OF EACH JAMB

SECTION SHOWING WOOD BLOCK IN PLACE AFTER ROLL CASE IS SET

WATSON
MANUFACTURING
COMPANY

EFFICIENCY ROLL SCREEN IN PLASTER JAMB
WITH ROLL CASE & METAL GUIDES CONCEALED

SCALE: 6" DRWG
EQUALS 1'-0"
DATE: NOV. 29 13

SCREENING UNUSUAL CONDITIONS

Through our long experience as screen manufacturers, we have had to screen many unusual conditions. Some of these were not merely conditions of screening, but we also have had to supply light structural metal supports and framing to accommodate the screens.

Our factory is especially well equipped with metal working machinery, not only for screens, but applicable to all kinds of light structural work in sheet metal and bronze angles, bars, etc. We can not only design, but can construct all necessary structural work to meet all special requirements.

Some Types of Our Structural Work

The following are a few of the types of conditions where we have erected the structural supports:

Hospitals—

Open Porches—Hospital Pavilions—

Structural framework to support side and roof screens over open porches or terraces, including support and slides for awnings by others, enclosing large open pavilions with screens and structural divisions. Examples of this type of installation are shown on page 25.

Courts and Patios—

The screening of the tops of open courts, or patios of any size, allowing all windows and doors facing courts to remain without screens.

Shades for Operating Rooms—We have installed, besides screens, a number of lightproof shades in operating rooms. These have been installed in our regular "Efficiency" construction. The lightproof shade is substituted for the wire cloth. As the edges of the shades run in the metal grooves, light cannot pass them.

Ventilated Illuminated Ceilings—

We have screened a number of large diffusing ceiling lights under skylights over large rooms. This is not an uncommon condition in hotel dining rooms with ventilating skylights above the room and artificially lighted at night. It is a necessity to screen such conditions, as the lights draw insects at night and the screens prevent not only annoyance to the guests but preserve the decorations.

Screening Against Birds—

Bell towers, large windows with exterior ornamental grilles.

Large windows, having ornamental grilles outside the regular window sash, often require a coarse mesh screen placed directly back of the grille to prevent birds from nesting and roosting there.

Birds also make nesting places in belfry or bell towers and the louvres of these require screening with a strong coarse mesh to prevent this nuisance.

Special Designed Screens for Special Purposes—

We often design special screens and special safety hardware for architects designing asylums, insane hospitals, penitentiaries, etc., where it is necessary to prevent the patients or inmates from operating screens.

We have designed special hardware for a number of architects of hospitals for detention. Ordinary screen hardware cannot be used in such cases as insane patients often try to throw articles out of the window or even themselves.

They will work for hours trying to operate a catch or other piece of hardware. We have a number of types of hardware specially designed for these conditions, but will be glad to cooperate with architects in developing new hardware designs when such are required for special conditions.

We will be glad to submit a list of hospitals and other references to architects of hospitals, etc., who



Sun Porch of a Large Hospital Screened by Watson
Bronze structural supports and snow guards as well as screens supplied by us
A typical Watson installation

desire such references.

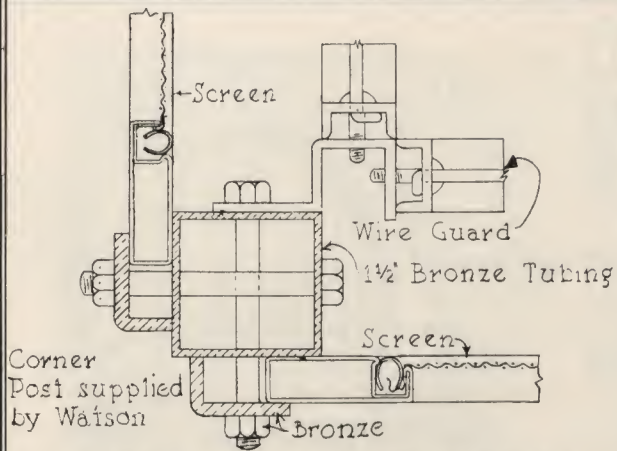
Screening of Large Openings and Porches—

On the following pages 25, 26, 27, 28 we have endeavored to show some details of various methods of screening porches. These details are all taken from the work of some prominent architects and have been installed in the manner illustrated.

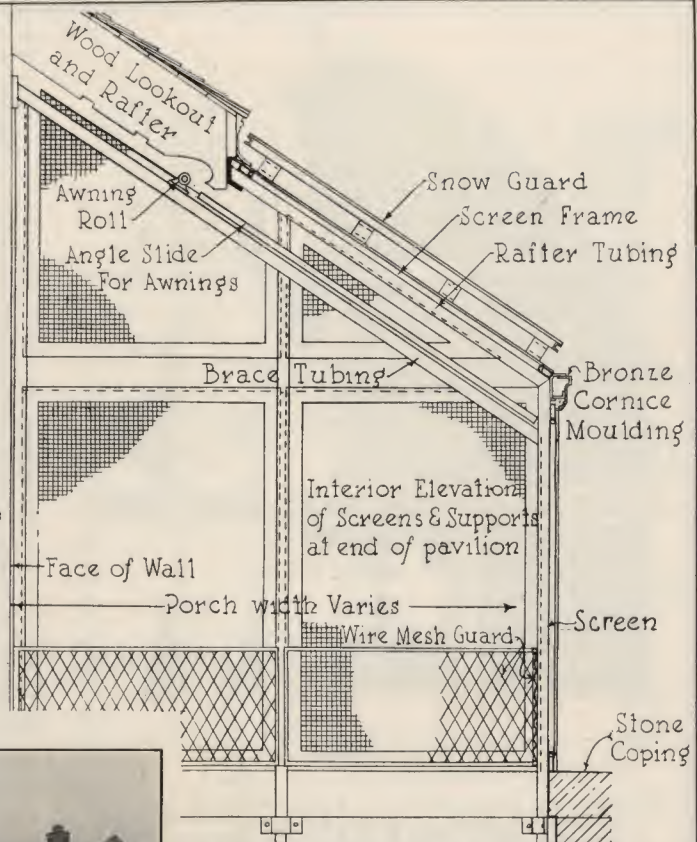
We have already referred to the two types of porch screening problems as shown on page 25. On page 26 are illustrated examples of large special shaped openings such as those in porches and large windows of college dining halls, etc.

On pages 27 and 28 are illustrated some of the more common types of problems in porch screening. The solution is clearly shown in each case.

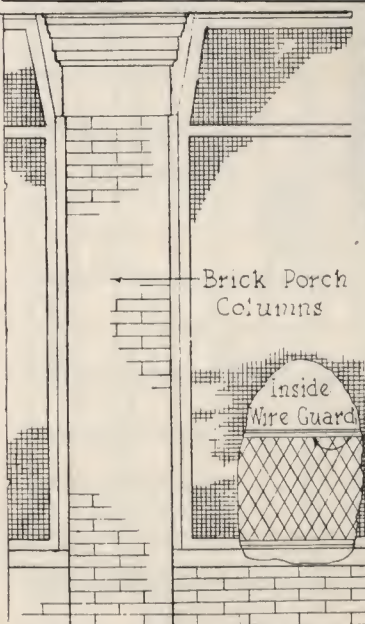
Some important notes are also included in a panel of the detail on page 28. We suggest that the notes are interesting to those designing porches, whether open or enclosed.



½ FULL SIZE SECTION SHOWING CONST OF BRONZE CORNER UPRIGHT



TYPICAL SECTION THROUGH PAVILION TERRACE SHOWING STRUCTURAL SUPPORTS FOR AWNING SCREENS & SNOW GUARD



Center Panel Screen Frame Pivoted at top to swing out.

Exterior Screen

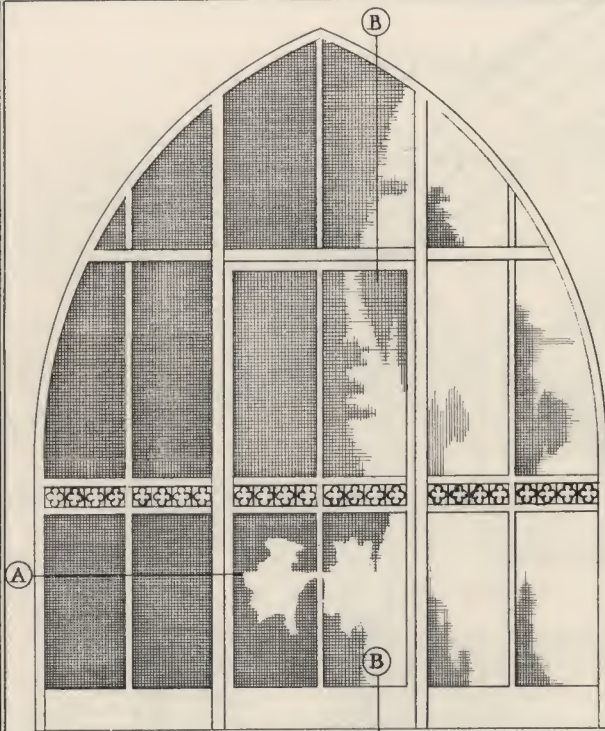
TYPICAL ELEVATION OF SCREENED COVERED PORCHES

PHOTOGRAPHS & DETAILS SHOWING PORCH SCREENS OF ESSEX MOUNTAIN SANATORIUM ESSEX CO., N.J.

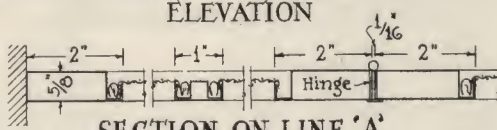
WATSON
MANUFACTURING
COMPANY

DETAILS OF SCREENS FOR HOSPITAL
SOLARIUMS

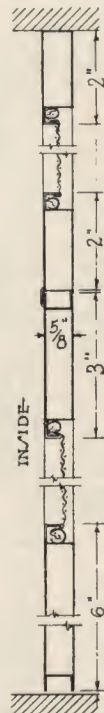
SCALE: 6" = 8' DWG
EQUALS 1'-0"
DATE: NOV. '29 14



ELEVATION



SECTION ON LINE 'A'



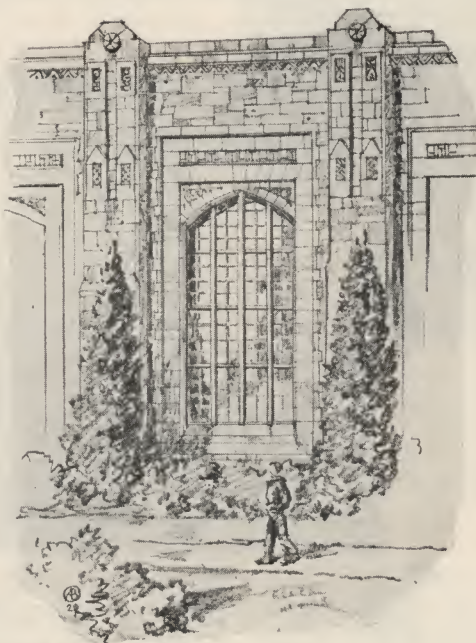
SECTION ON LINE 'B-B'



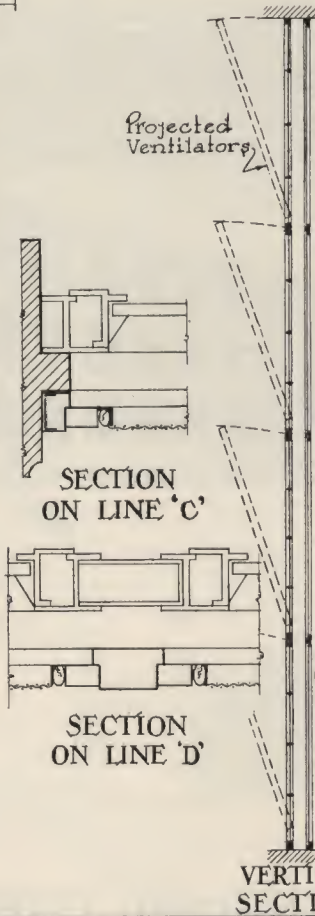
SCREENING UNUSUAL
DOOR CONDITION



DETAIL
OF
GRILLE



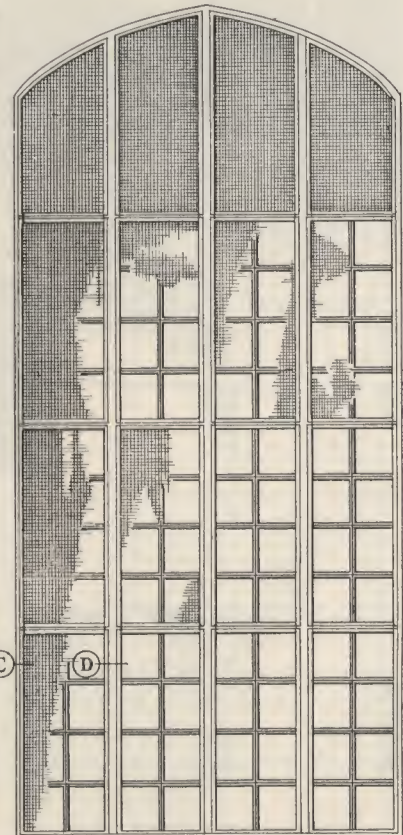
SCREENING LARGE WINDOWS
OF DINING HALL



SECTION
ON LINE 'C'

SECTION
ON LINE 'D'

VERTICAL
SECTION

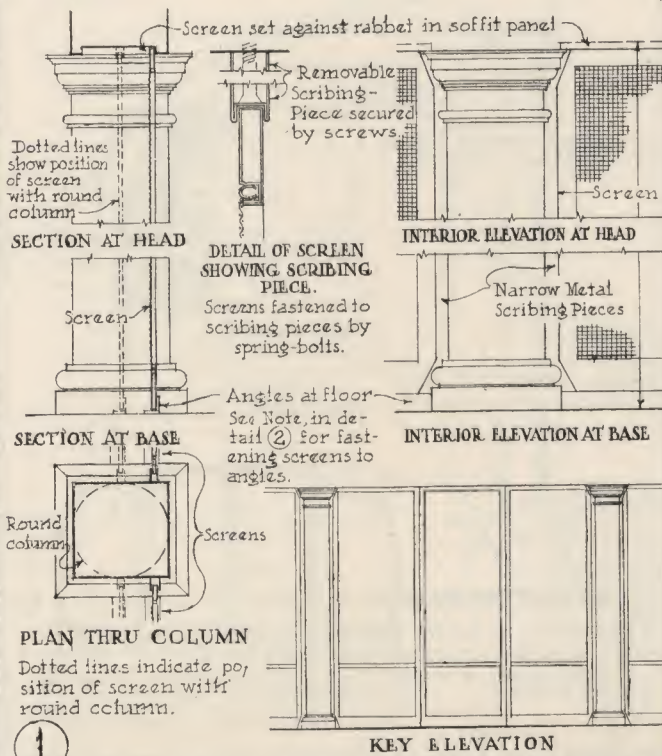


ELEVATION

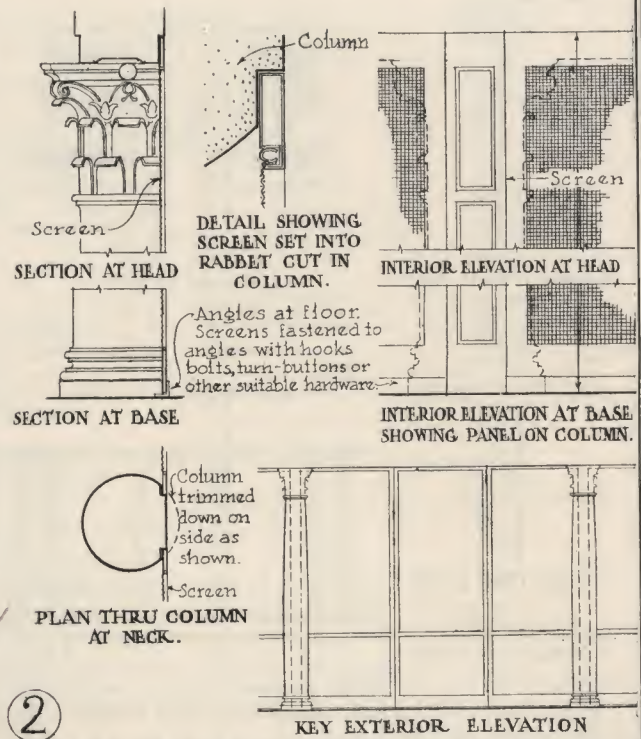
WATSON
MANUFACTURING
COMPANY

SCREENING OF SOME UNUSUAL CONDITIONS

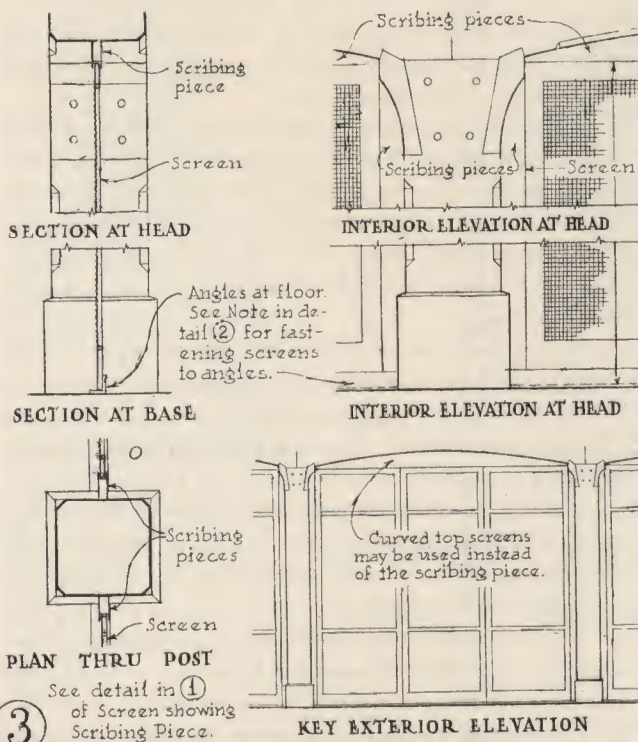
SCALE, 3 IN. DRWG
EQUALS 1 FT. DATE, NOV. 29 15



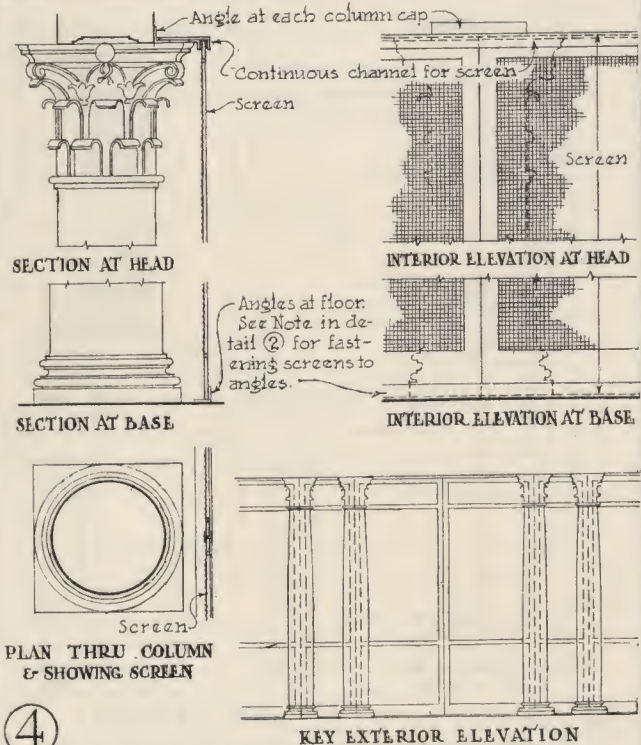
1
OPEN PORCH ENCLOSED WITH REMOVABLE SCREENS HAVING SCRIBING PIECES FITTED TO SQUARE COLUMNS.



2
METHOD OF INSTALLING SCREEN ATTACHED TO COLUMN WITHOUT SCRIBING PIECES.



3
METHOD OF SCREENING PORCH WITH IRREGULAR SHAPED OPENINGS, USING SCRIBING PIECES.



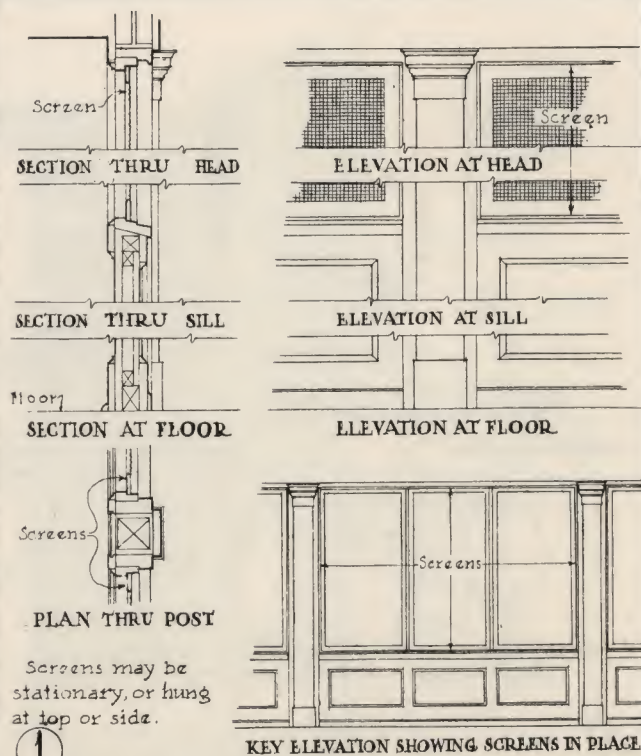
4
SCREENS PLACED INSIDE THE LINE OF COLUMNS, AND FREE OF SAME.

NOTE - SEE GENERAL NOTES, DRAWING 17

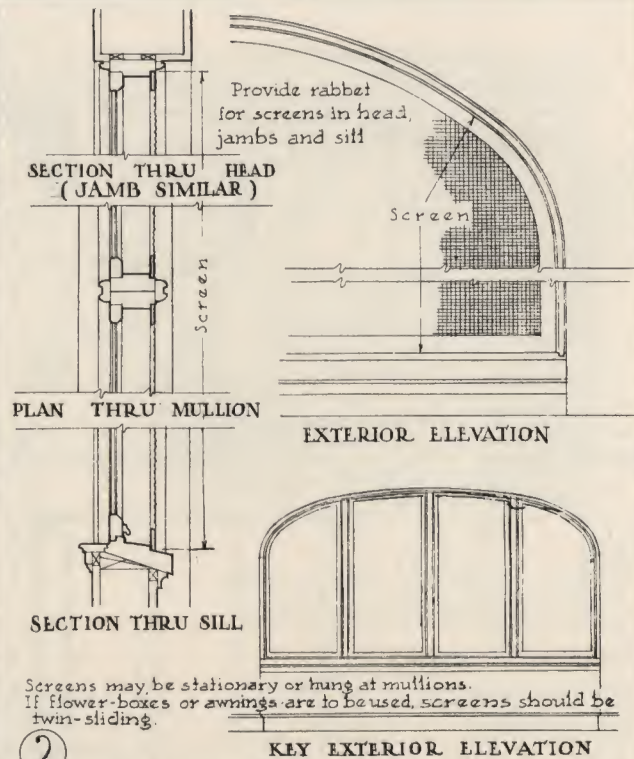
WATSON
MANUFACTURING
COMPANY

METHODS OF SCREENING OPEN PORCHES
FOR SUMMER USE

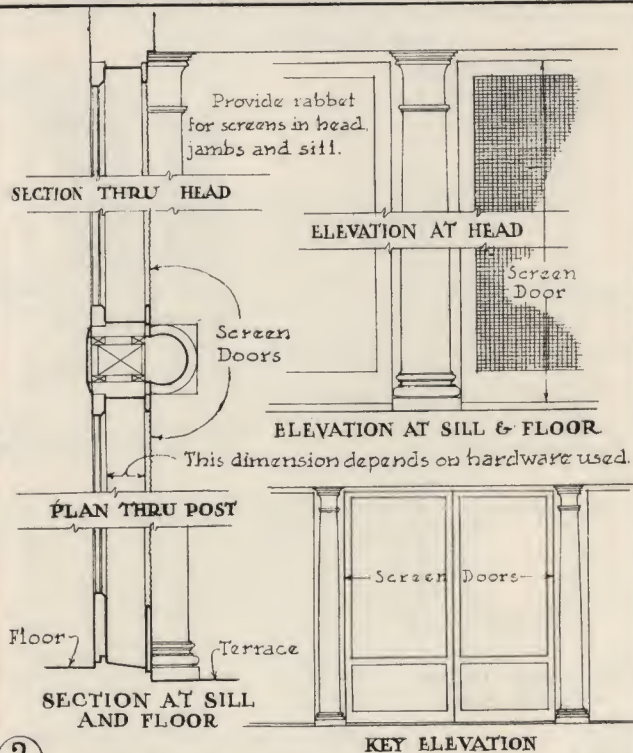
NOT DRAWN TO SCALE
DATE NOV. 29 16



①
ENCLOSED PORCH WITH INTERCHANGEABLE
SCREENS AND STORM SASH.



②
EXTERIOR SCREENS WITH INWARD OPENING
CASEMENTS IN STUCCO OR MASONRY WALL



③
Lighting fixtures which will not interfere with the door-swings should be selected.
ENCLOSED PORCH WITH FRENCH
GLAZED DOORS & SCREEN DOORS.

GENERAL NOTES.

Details on Drawings 16 & 17 show metal screens. Wood screens may be used in every case, instead of metal if desired.

Metal screens have the following advantages over wood screens — (1) They are stronger. (2) Having narrower stiles and rails, larger sight-openings are obtained, and there is less interference with the vision. This is particularly the case with the meeting-stiles and reinforcing-bars. (3) They require less room for storage.

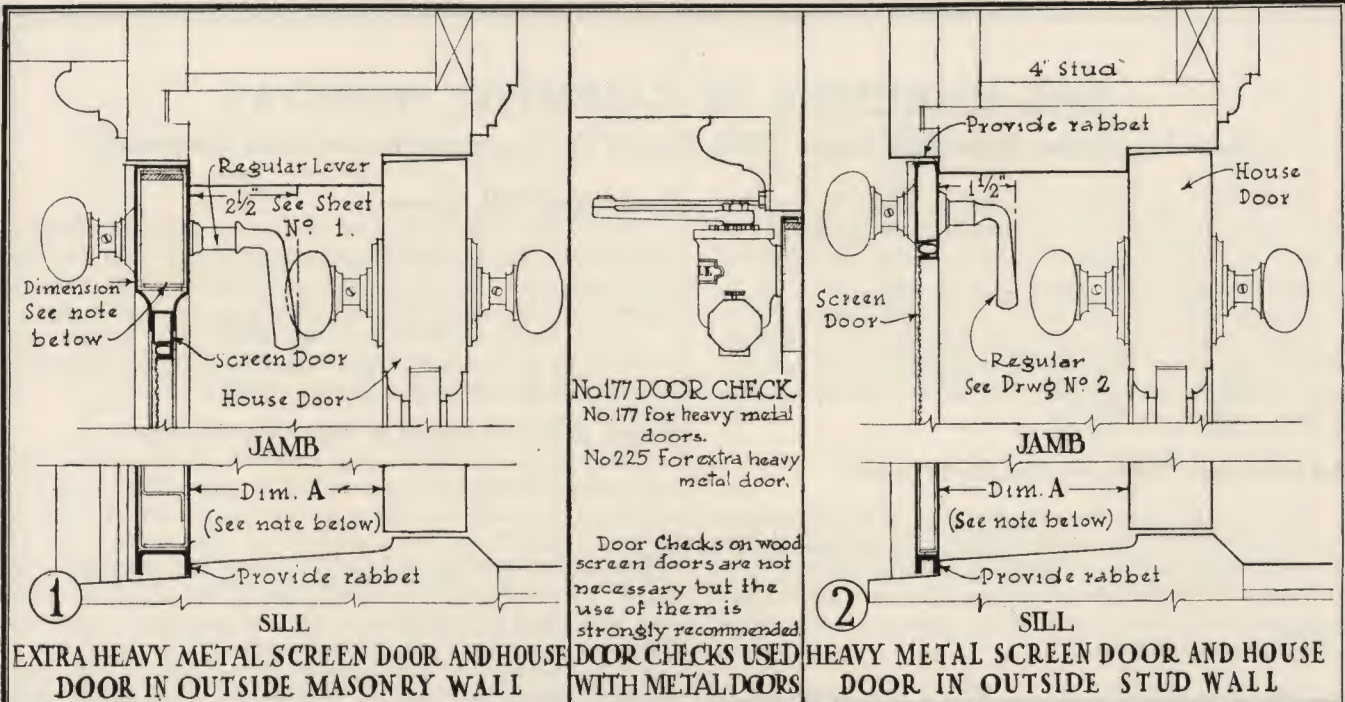
For convenience in handling and storage, porch screen sections should not be made too large.

When detailing a porch, provision should be made for screens, whether they are to be installed when the building is erected, or left for future consideration.

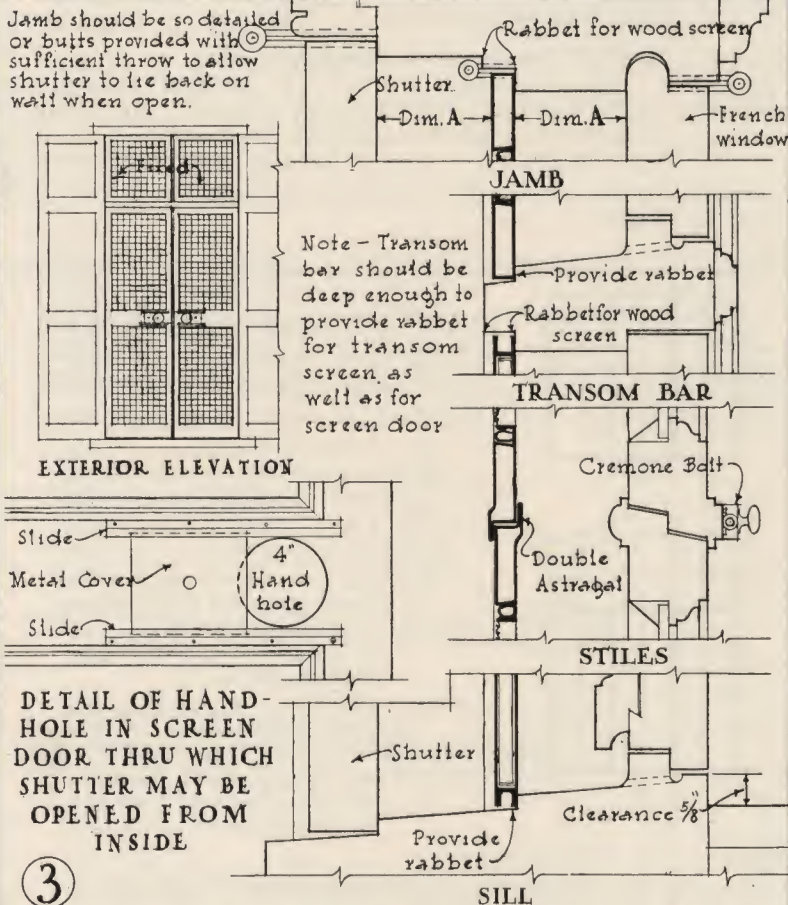
For high-class work, and work in localities within reach of salt air, bronze screens should be specified in preference to steel, to prevent rusting and to eliminate necessity of repainting.

The essential requirement in designing is to provide some type of rabbet to receive the screen at head, jamb and sill, and to make a light-stop on all sides.

On straight surfaces angles may be used as rabbets instead of scribing pieces.



Jamb should be so detailed or butts provided with sufficient throw to allow shutter to lie back on wall when open.



DETAIL OF HAND-HOLE IN SCREEN DOOR THRU WHICH SHUTTER MAY BE OPENED FROM INSIDE

DETAILS OF FRENCH WINDOW OPENING IN WITH SCREEN DOOR AND SHUTTERS BOTH OPENING OUT

DETAILS OF FRENCH WINDOW SWINGING OUT WITH HEAVY METAL SCREEN DOOR OPENING IN

DIMENSION A IS GOVERNED BY KIND OF HARDWARE AND DOOR CHECK USED. FOR THICKNESS OF SCREEN DOORS AND HARDWARE SEE DRWGS 1, 2, 3 & 4. IF WOOD SCREEN DOORS ARE USED INSTEAD OF METAL DOORS, PROPER ALLOWANCE MUST BE MADE FOR RABBETS

WATSON
MANUFACTURING
COMPANY

EXTRA HEAVY AND HEAVY METAL SCREEN
DOORS WITH WOOD DOORS AND FRENCH WINDOWS

SCALE ~3" DRWG
EQUALS 1-0
DATE NOV. 29 18

THE SCREENING OF CASEMENT WINDOWS

Some Suggestions Regarding Points Which Should Be Considered in Screening Casements

Generally speaking, casement windows constitute one of the most complicated problems in screening. There are so many different kinds of casement windows, largely opening out, set in frames of different materials and in different ways.

The great variety of exposed and concealed operating hardware, interior decoration, awnings, etc., necessitate a great many kinds of screens applied under various conditions.

All Casement Windows Can Be Screened

We are prepared to screen any type of new or existing windows installed under all conditions. We are glad to assist in preparing details for any kind of frame or roll screens or to offer our advice and suggestions based upon many years of successful screening experience.

Details of Methods of Screening Casement Windows Shown In This Catalogue

We have included a number of details on the following pages which cover most of the typical screening details for common types of casement windows and the most satisfactory method of screening them. It is, of course, impossible to cover all the types and conditions of screening, but special details will gladly be sent on request.

Frame and Roll Screens

Both frame and roll screens are used for casements, the proper selection of screens depending upon various circumstances. Roll screens are furnished in various types and are described elsewhere in this catalogue.

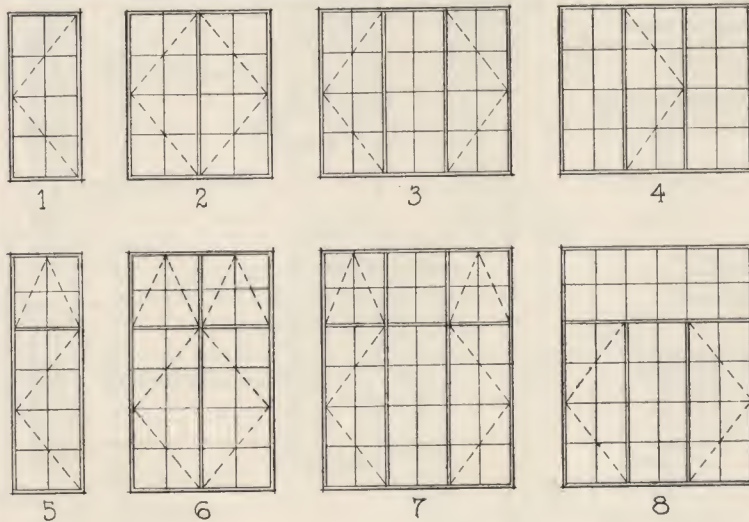
Frame screens may be hung at the top, at the side or may be stationary. They may be single or double, vertical or horizontal, multiple sliding, etc.

Points to Be Observed in Selecting Screens

The proper selection of screens should take into consideration quality, durability, applicability, method of operation and whether, in the operation, it will interfere with draperies, curtains, awnings, etc. The interior decorator should be requested to arrange curtains, draperies, etc., usually above the window opening, so as not to interfere with the opening of screens. This however, depends upon the type of screens selected. Consideration should also be given to the sash hardware and the screens should be so installed that they will not interfere.

Special Construction, Hardware, etc.

We are prepared to vary our standard construction when necessary, and have developed a large variety of different kinds of hardware applicable under different conditions of screen installation. Many of these items will be found described elsewhere in this catalogue.



SUGGESTIONS REGARDING SCREENING OUTWARD OPENING STANDARD STEEL CASEMENTS

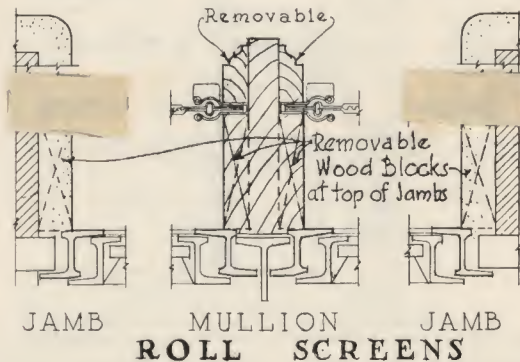
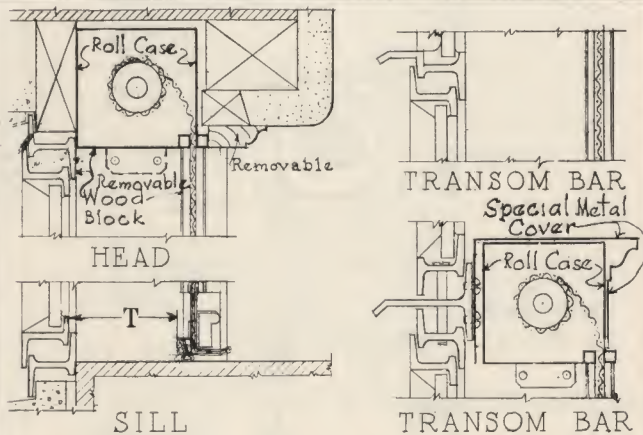
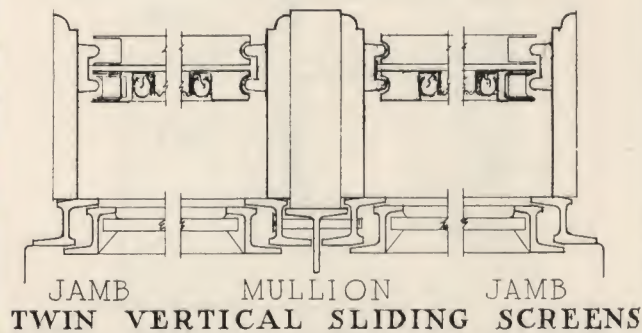
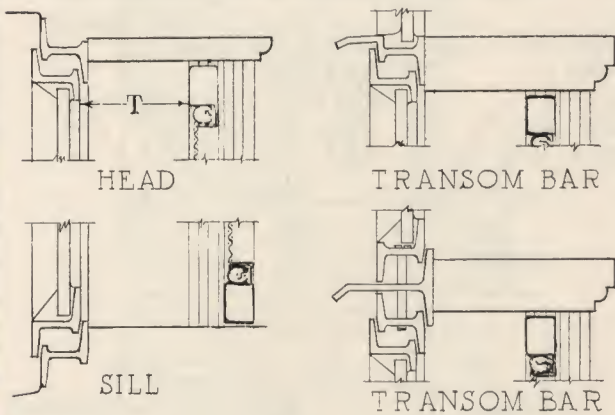
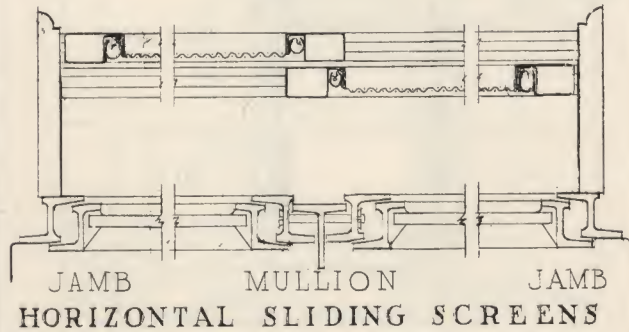
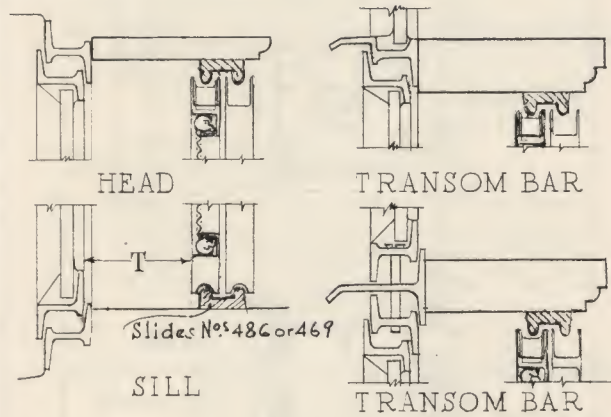
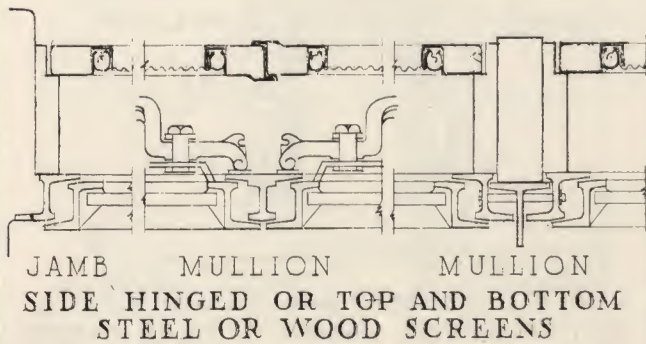
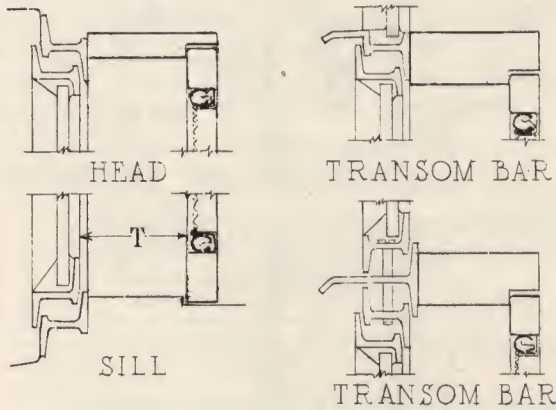
- TYPE 1. Roll Screen, Side Pivoted Frame Screen.
- TYPE 2. One Roll Screen Full Width, Horizontal Sliding Screens.
- TYPE 3. Two Roll Screens with wood Mullions.
- TYPE 4. Roll Screen between Mullions, Single pivoted or Sliding Screens.
- TYPE 5. Transoms, Fixed Screen outside, Roll Screen or Pivoted Screen below.
- TYPE 6. Transoms, Fixed Screens outside, Roll Screen or Twin Sliding Screens below.
- TYPE 7. Transoms, Fixed Screens Outside, Two Roll Screens or Two Sliding Screens.

TYPE 8. Two Roll Screens or Two Sliding Screens.

TYPE 9. Side Hinged Casement Screens. If with square head inside, Roll Screen, Twin Sliding or Side Hung Frame Screens.

VARIOUS METHODS OF SCREENING STANDARD STEEL CASEMENT WINDOWS

DEWG
19

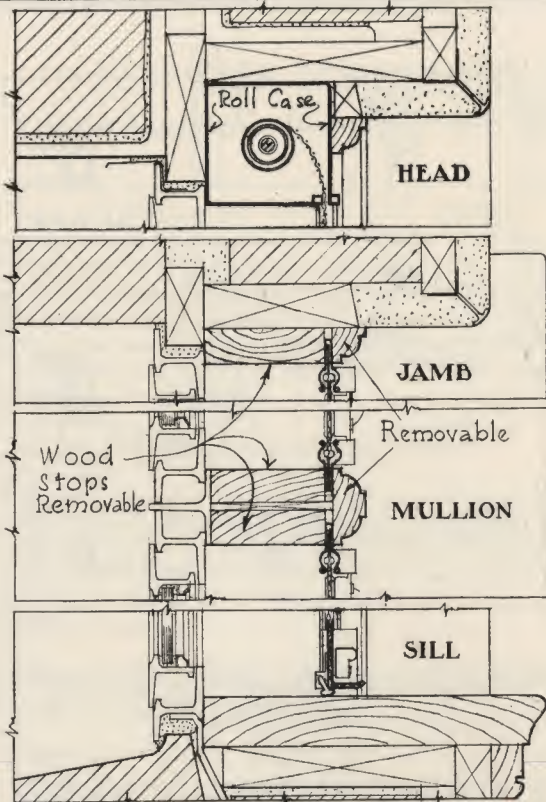


NOTE · DIMENSION · T · VARIES WITH HARDWARE OF DIFFERENT MFG'S

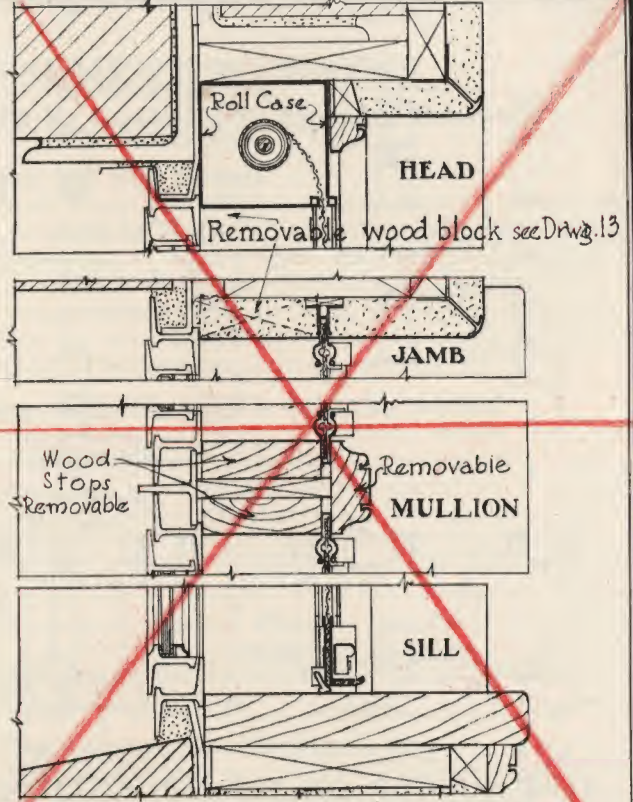
WATSON
MANUFACTURING
COMPANY

VARIOUS METHOD OF SCREENING
STANDARD STEEL CASEMENTS

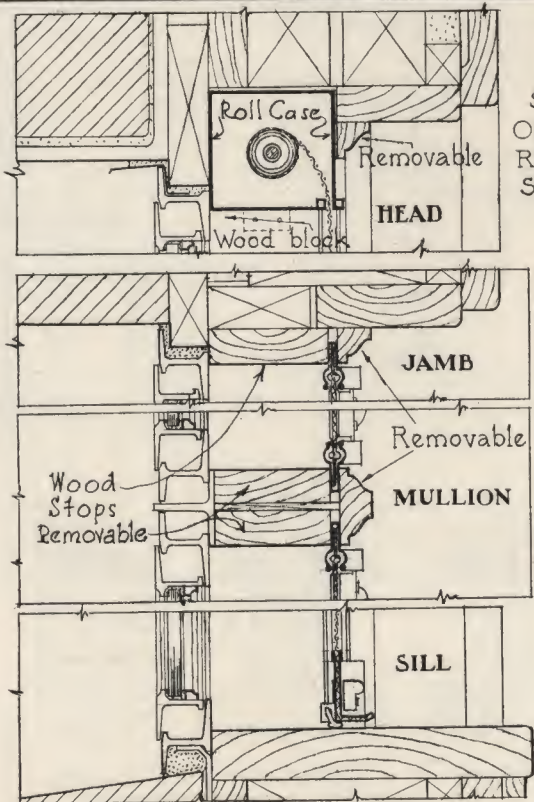
SCALE: ~ 3" DRWG
EQUALS 1'-0"
DATE: NOV. 29 20



WOOD STOP AND MULLION AND PLASTER RETURNS IN MASONRY WALL

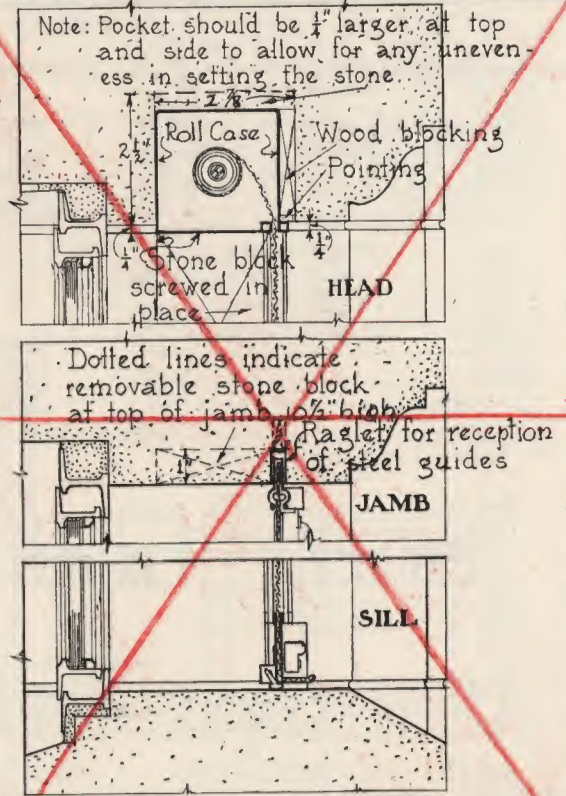


ALL PLASTER JAMBS & HEAD WITH WOOD MULLION IN MASONRY WALL



WOOD STOPS, JAMBS, TRIM & MULLION IN BRICK VENEER WALL

NOTE.
FOR FULL
SIZE DETAILS
OF EFFICIENCY
ROLL SCREEN
SEE DRAWING
No. 12.

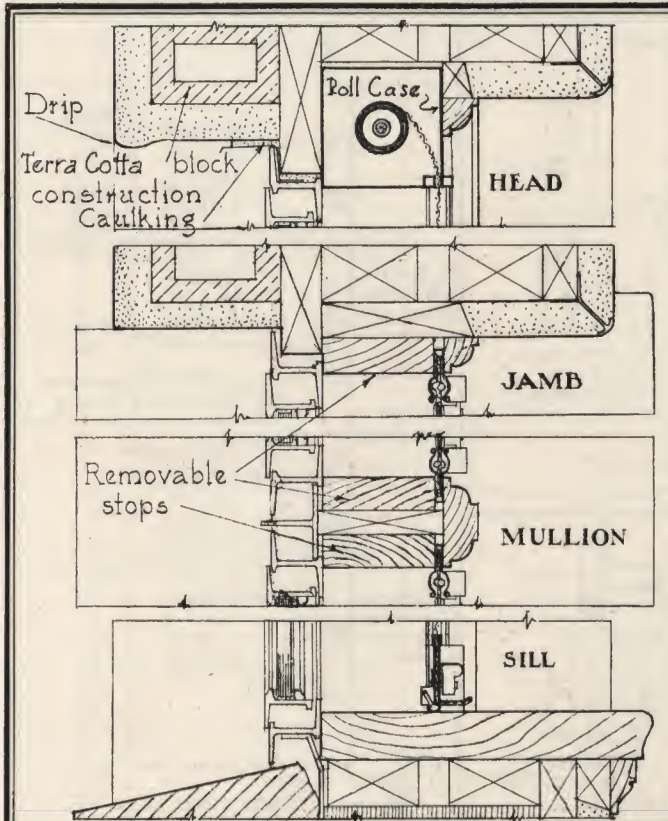


STONE HEAD, JAMBS & SILL WITH EFFICIENCY ROLL SCREEN CONCEALED

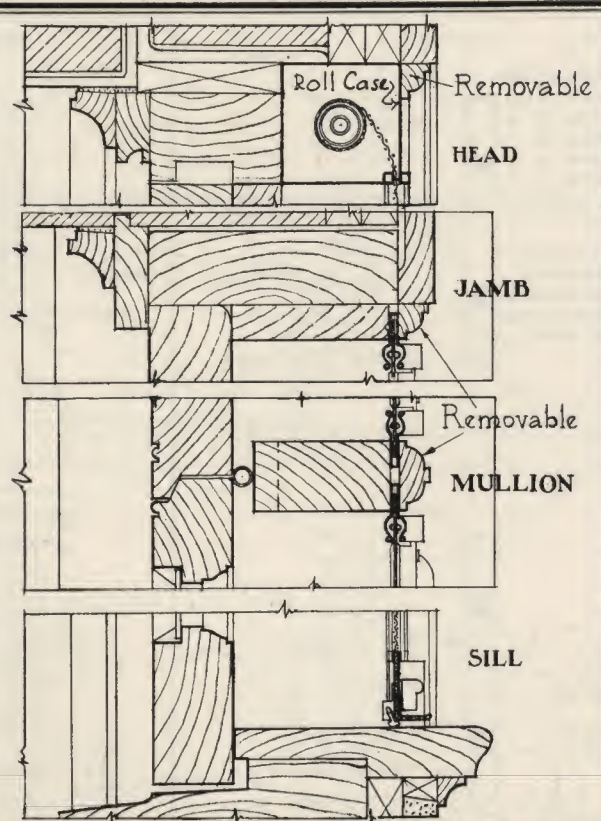
WATSON
MANUFACTURING
COMPANY

INSTALLATIONS OF "EFFICIENCY" ROLL SCREENS
WITH STEEL CASEMENTS IN VARIOUS CONSTRUCTIONS

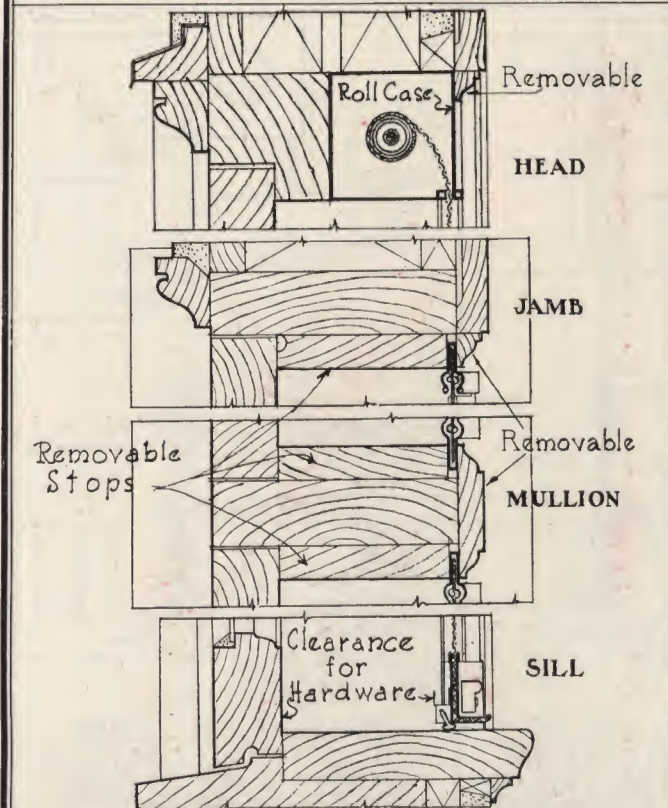
SCALE: ~ 3" DRWG
EQUALS 1'-0"
DATE: NOV. 29 21



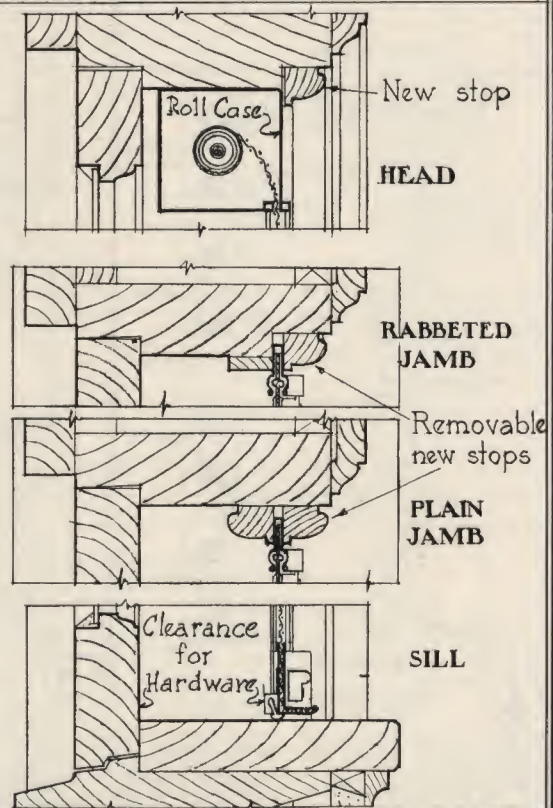
WOOD STOPS & MULLION & PLASTER RETURNS IN HOLLOW TILE & STUCCO WALL



WOOD STOPS, MULLION & TRIM FOR MULTIFOLD TYPE CASEMENT WINDOWS



WOOD CASEMENT OPENING OUT IN STUCCO & FRAME CONSTRUCTION

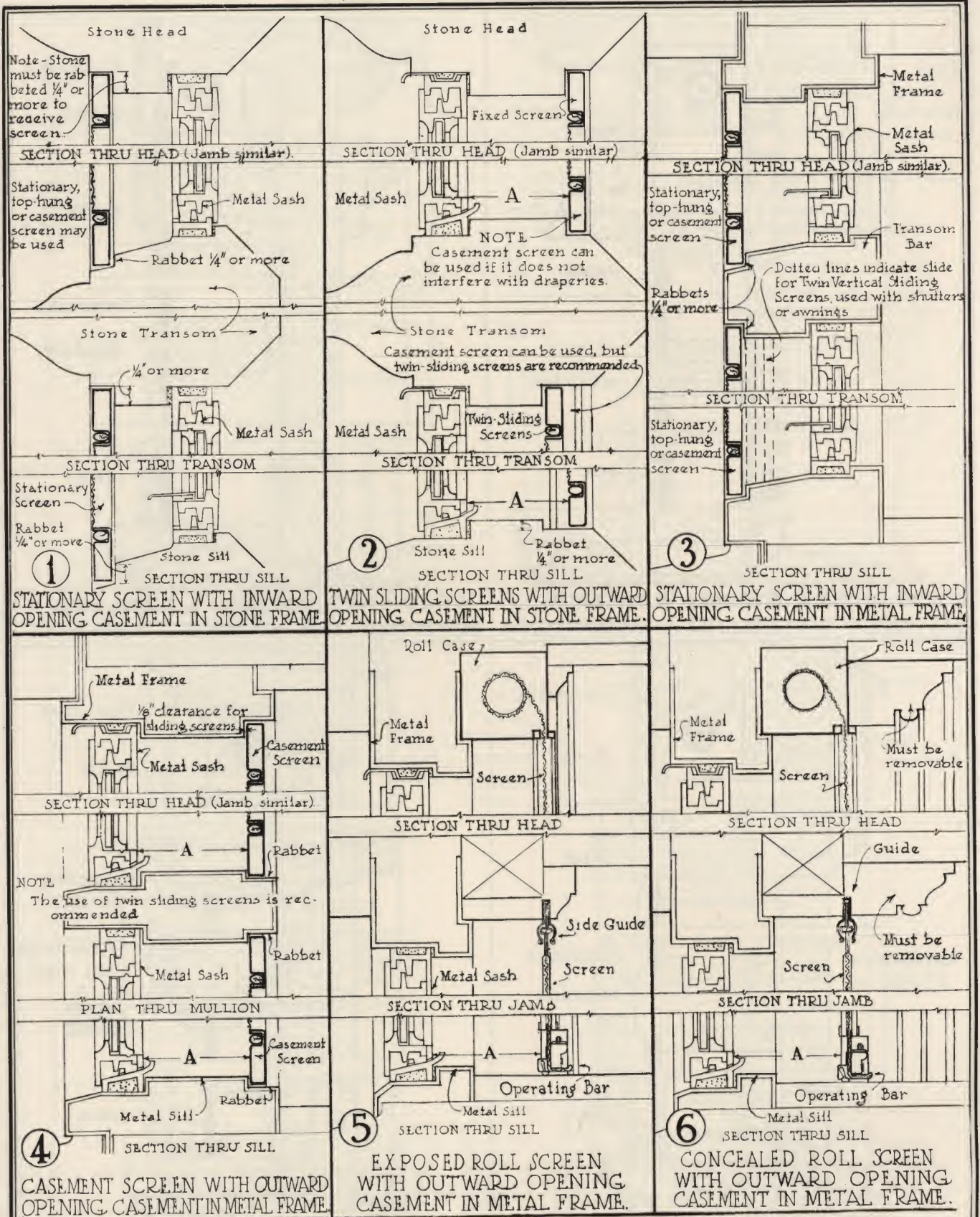


INSTALLING EFFICIENCY ROLL SCREEN WITH OLD WOOD CASEMENTS-ROLLER BOX EXPOSED

WATSON
MANUFACTURING
COMPANY

INSTALLATIONS OF "EFFICIENCY" ROLL SCREENS
WITH STEEL CASEMENTS IN VARIOUS CONSTRUCTIONS

SCALE: ~ 3" DRWG
EQUALS 1'-0"
DATE: NOV. 29 22

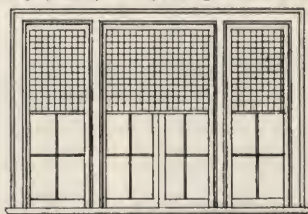
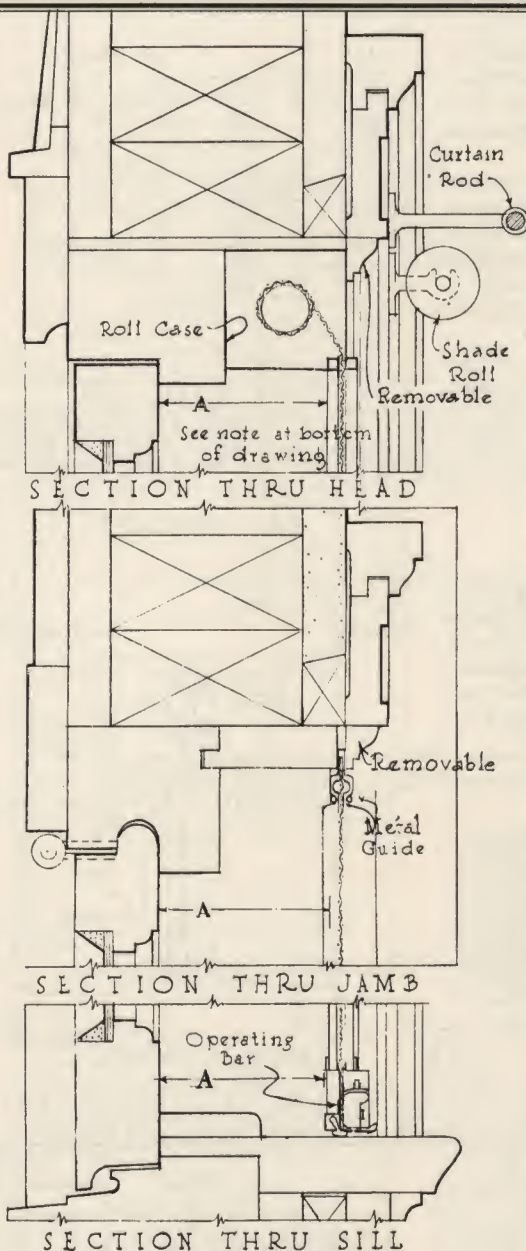


NOTE - DIMENSION A WILL BE DETERMINED BY THE HARDWARE USED.

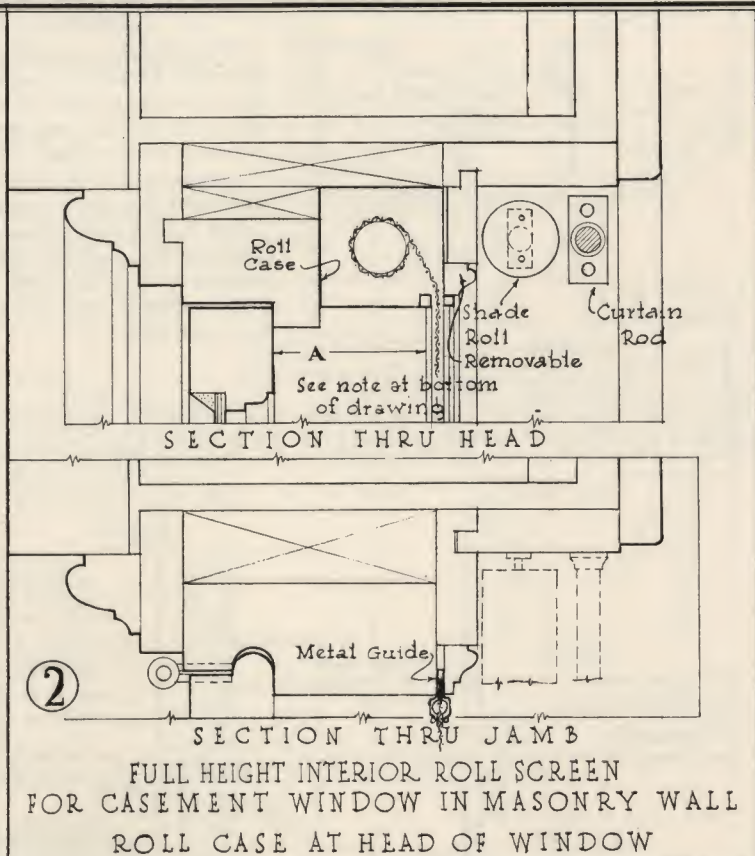
WATSON
MANUFACTURING
COMPANY

METAL FRAME & ROLL SCREENS
INSTALLED WITH METAL CASEMENTS

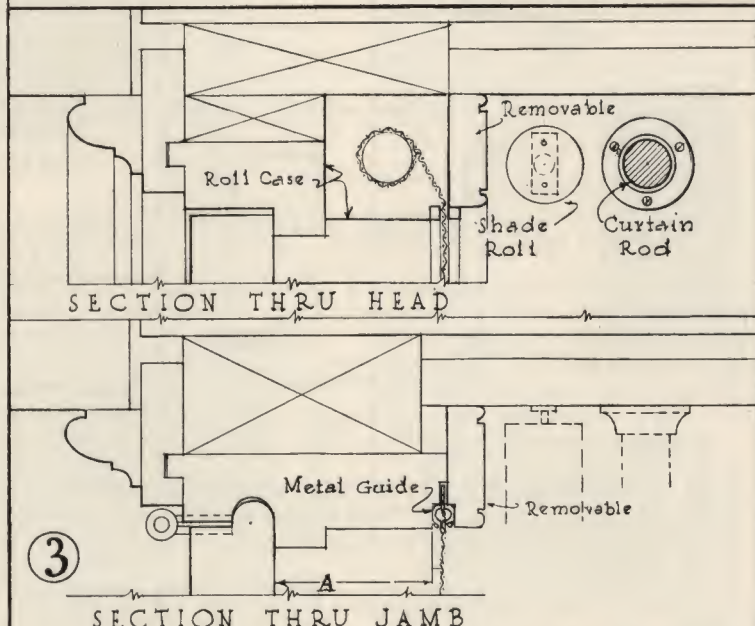
SCALE: $\frac{3}{4}$ " DRWG.
EQUALS 1'-0"
DATE: NOV. 29 23



①
INTERIOR ELEVATION
SCREENS DRAWN PART WAY DOWN
FULL HEIGHT INTERIOR ROLL SCREEN
FOR CASEMENT WINDOW IN 4 IN. STUD WALL
ROLL CASE AT HEAD OF WINDOW



②
FULL HEIGHT INTERIOR ROLL SCREEN
FOR CASEMENT WINDOW IN MASONRY WALL
ROLL CASE AT HEAD OF WINDOW



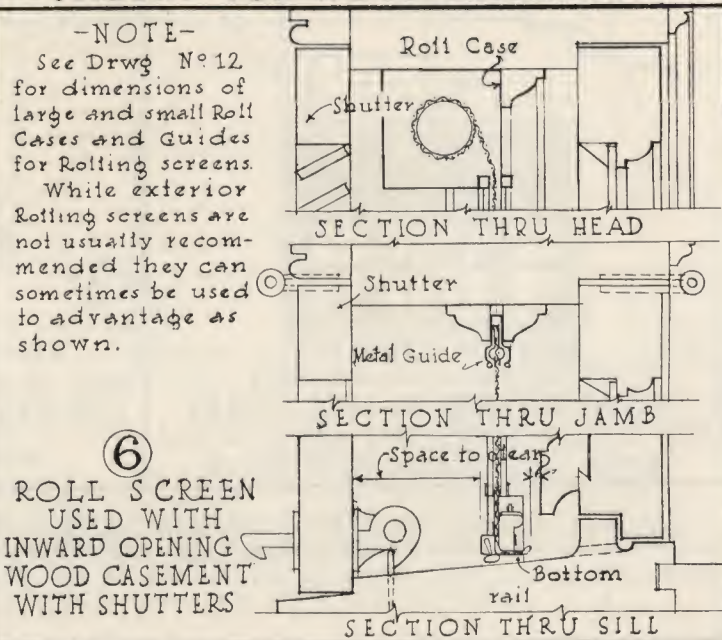
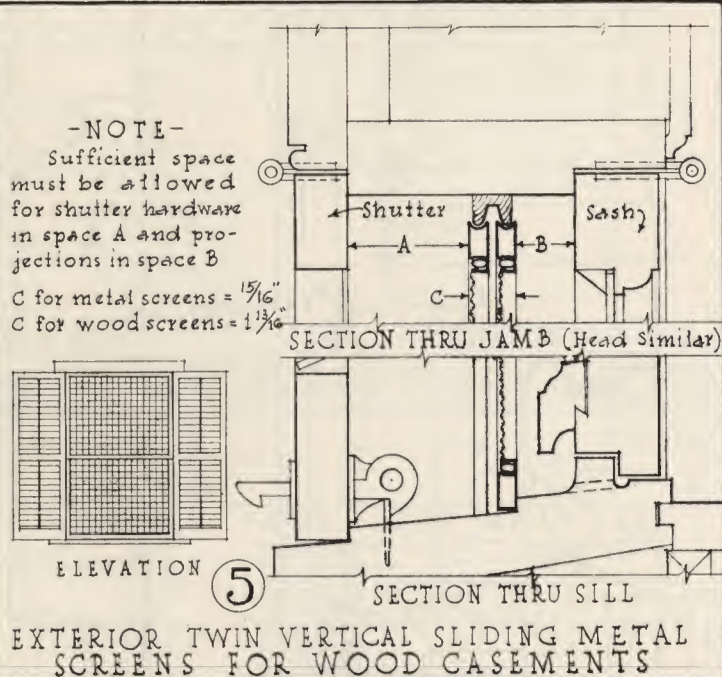
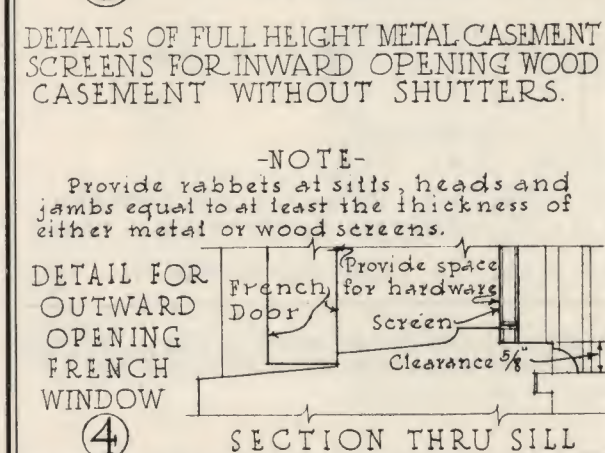
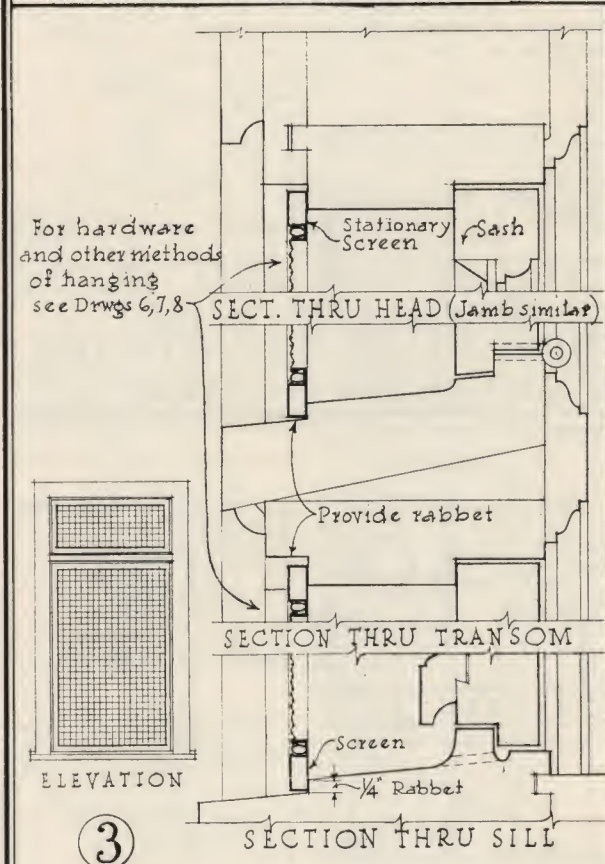
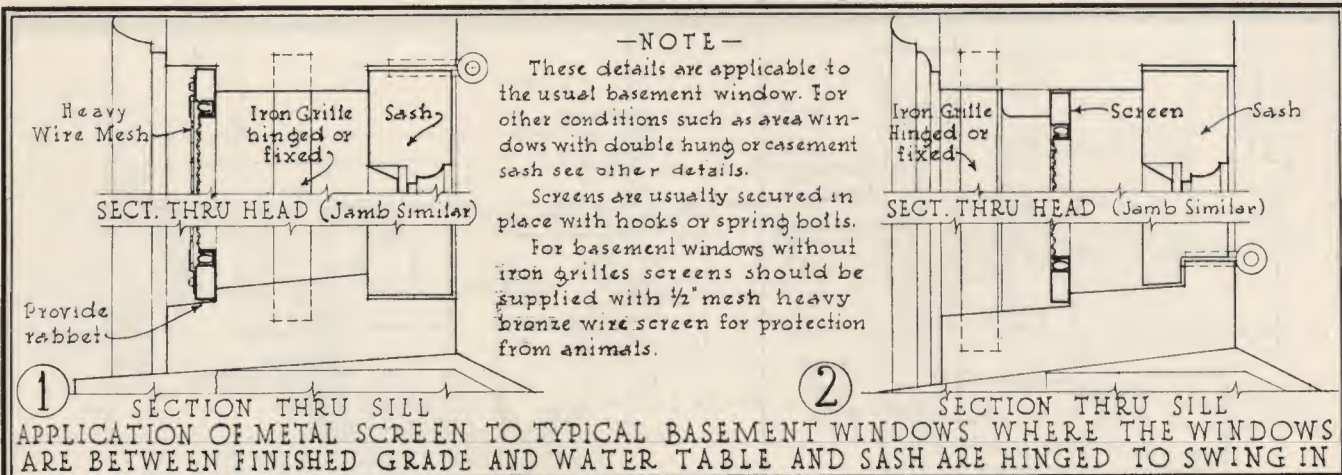
③
FULL HEIGHT CONCEALED INTERIOR ROLL SCREEN
FOR CASEMENT WINDOW IN MASONRY WALL
ROLL CASE AT HEAD OF WINDOW

GENERAL NOTES EXCEPTING TWIN SLIDING SCREENS, THE ROLL SCREEN IS THE MOST DESIRABLE METHOD OF SCREENING CASEMENTS OPENING OUT AS IT DOES NOT INTERFERE WITH DRAPERIES. DIMENSION A WILL IN ALL CASES BE DETERMINED BY THE TYPE OF HARDWARE USED

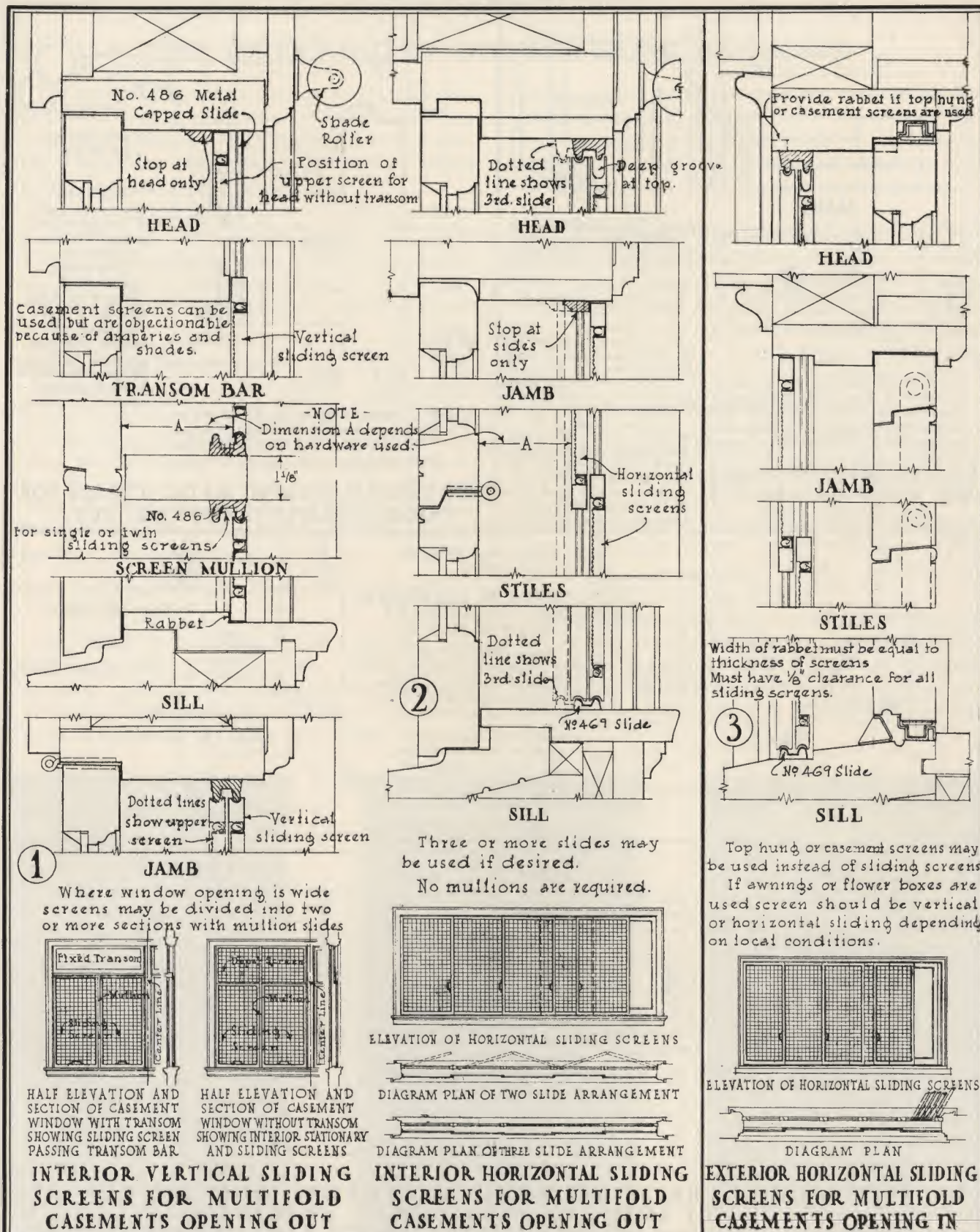
WATSON
MANUFACTURING
COMPANY

EXPOSED AND CONCEALED ROLL SCREENS
FOR WOOD CASEMENTS OPENING OUT

SCALE 3" = 1'-0"
DATE NOV. 29
DRAWG 24



THESE DETAILS (EXCEPT FIG. 6), ALSO APPLY FOR WOOD SCREENS

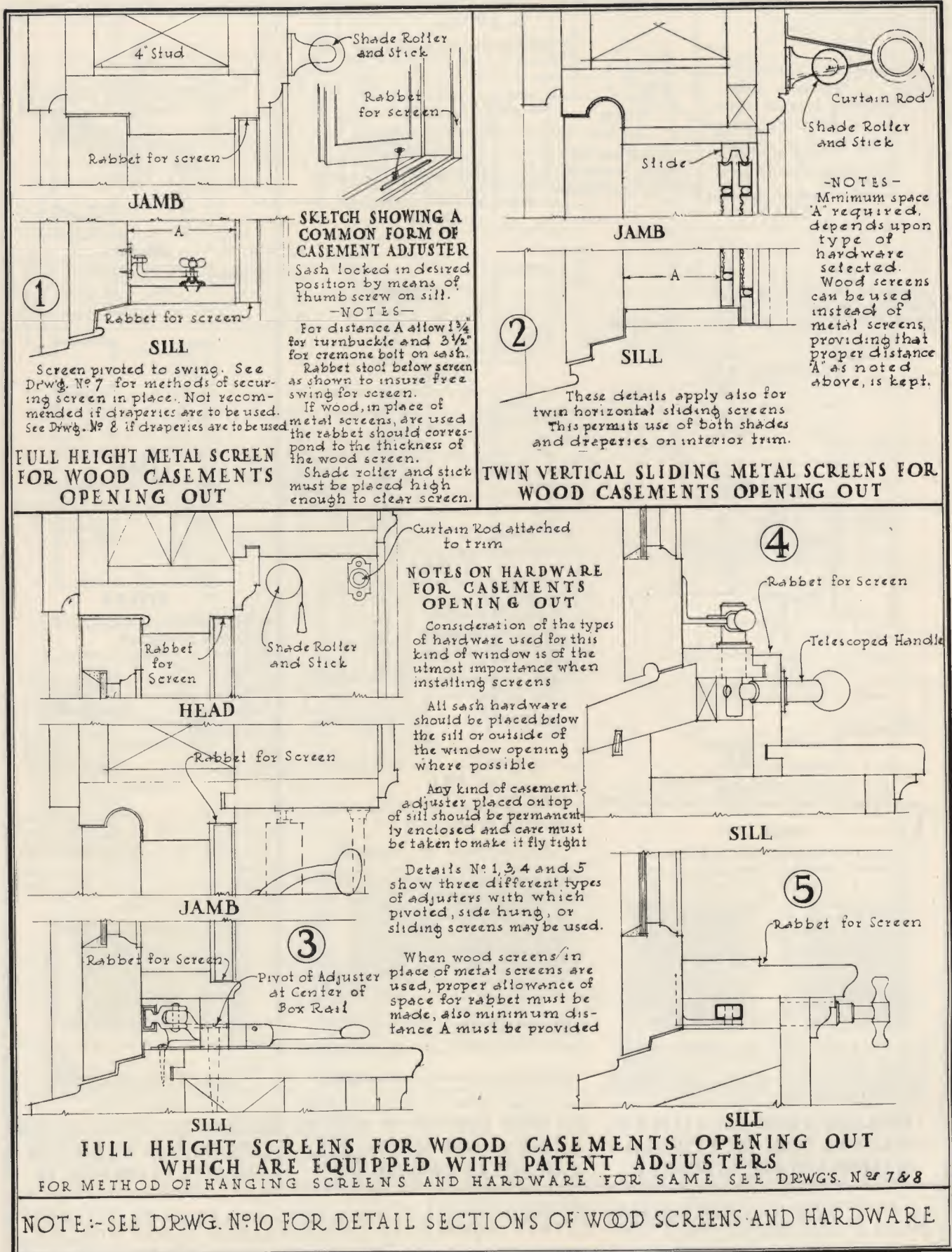


NOTE WOOD SCREENS MAY BE USED IN PLACE OF METAL SCREENS IF DESIRED. SEE DRWGS NOS. 10 FOR DETAIL SECTIONS OF METAL AND WOOD SCREENS

WATSON
MANUFACTURING
COMPANY

VERTICAL AND HORIZONTAL SLIDING SCREENS
FOR MULTIFOLD CASEMENT WINDOWS

SCALE 3 IN. DRWG
EQUALS 1 FT
DATE NOV. 29 26



WATSON
MANUFACTURING
COMPANY

PIVOTED AND SLIDING SCREENS FOR
WOOD CASEMENT WINDOWS OPENING OUT

SCALE 3" = 1'-0"
DATE NOV. 29 27

THE SCREENING OF DOUBLE HUNG WINDOWS

The screening of double hung windows is generally a much simpler proposition than the screening of casement windows. There are a number of conditions, however, which must be considered which will influence the type of screen to use.

Double hung windows are usually screened from the outside with frame screens. It is very rarely that conditions around a double hung window necessitate the use of a roll screen. This, of course, reduces the expense of screening and installation considerably.

Types of Frame Screens to Use

Wherever possible, we suggest that screens should cover the entire opening. This applies especially where it is desired to obtain as much ventilation as possible, as in bedrooms, kitchen, etc. It allows the sash to be opened from either the top or bottom or both. For many cases the regular plain full height frame screen can be used. This may be stationary, top or side hung.

Where Full Height Single Frame Screen Should Not Be Used

The mistake is sometimes made of ordering full height frame screen when awnings, shutters or window boxes are to be used. In the case of awnings it is necessary to have the operating cords accessible for raising and lowering the awnings and the

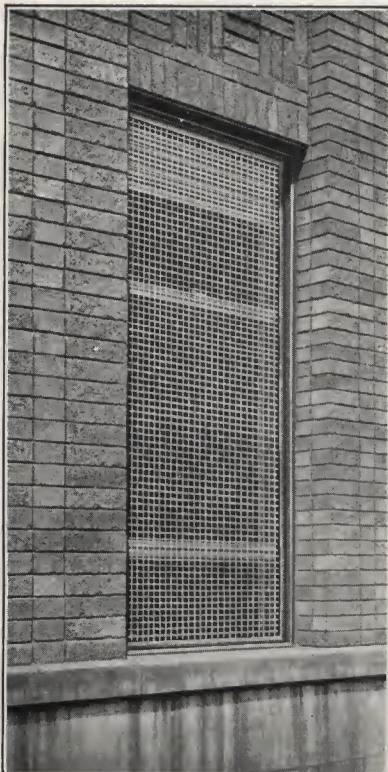
screen cannot be of the casement type on account of its operating against the top of the opening. This requires the use of either single or twin sliding screens. If window boxes are used, they also must be accessible for watering and require the use of sliding screens.

Half Height Sliding Screens—These are very frequently used when it is not necessary to screen the entire opening. They operate on metal covered wood slides which run from the sill to the window head, allowing the screen to cover either the upper or lower half of the opening. They are also used when the cost of screening is an important factor.

Exterior Screens Should Be Durable

As the screens for double hung windows are generally installed on the exterior, they should be made of the best material and in the most substantial manner. We recommend the use of metal screens on account of their undoubted advantages over wood frame screens. Where the greatest durability and least expense of upkeep is desired, we recommend bronze frame screens.

Roll Screens—These are sometimes used outside, but we do not recommend them. Even though they are made of durable material, preferably bronze, they can never give the continued satisfactory service that can reasonably be expected from frame screens.



Full Height Single Frame Screen

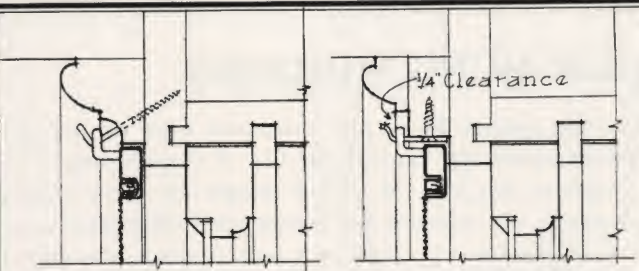


Twin Half Height Sliding Screens



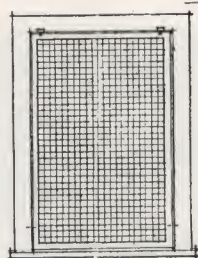
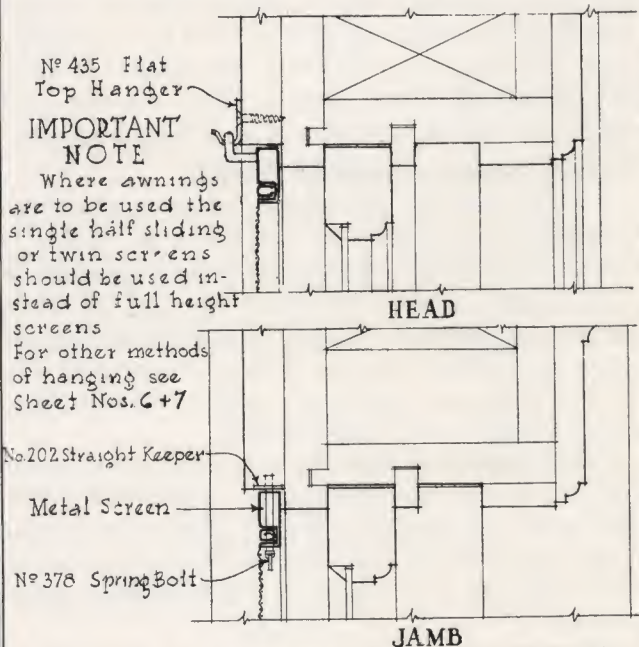
Single Half Height Sliding Screen

Types of Watson Screens for Double Hung Windows

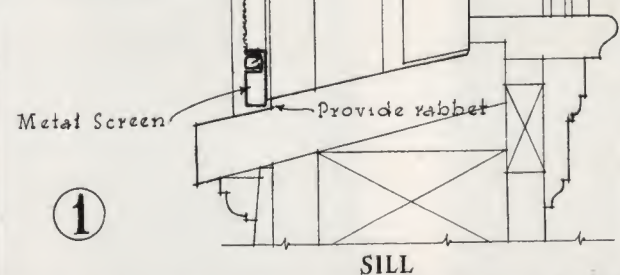


N^o 438 HANGER USED WHERE N^o 435 AND 437 CANNOT BE USED TO ADVANTAGE

N^o 437 ANGLE TOP HANGER

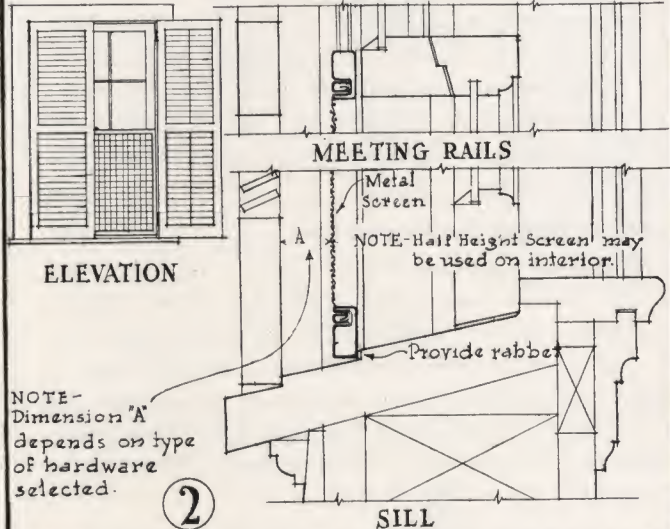
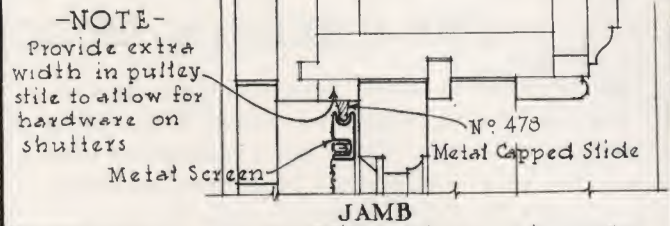


ELEVATION

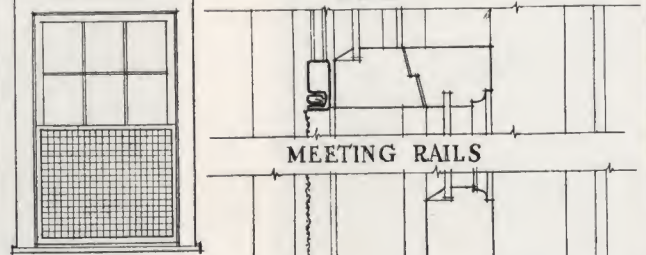
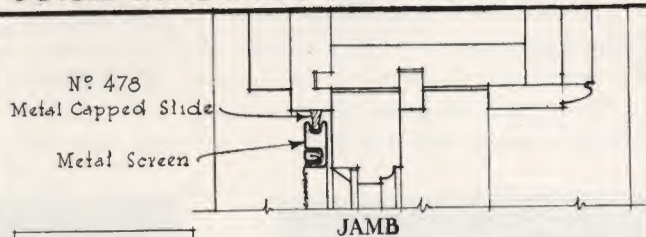


①

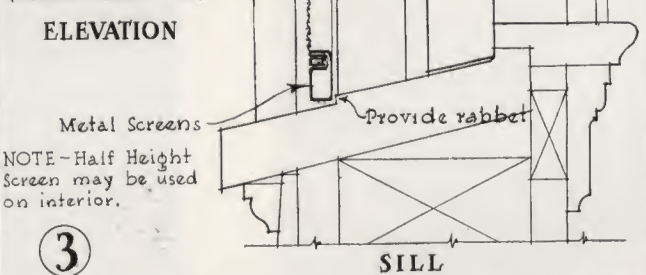
FULL HEIGHT EXTERIOR TOP HUNG SCREEN FOR DOUBLE HUNG WINDOW WITHOUT SHUTTERS



HALF HEIGHT EXTERIOR SLIDING SCREEN FOR DOUBLE HUNG WINDOW WITH SHUTTERS



ELEVATION



③

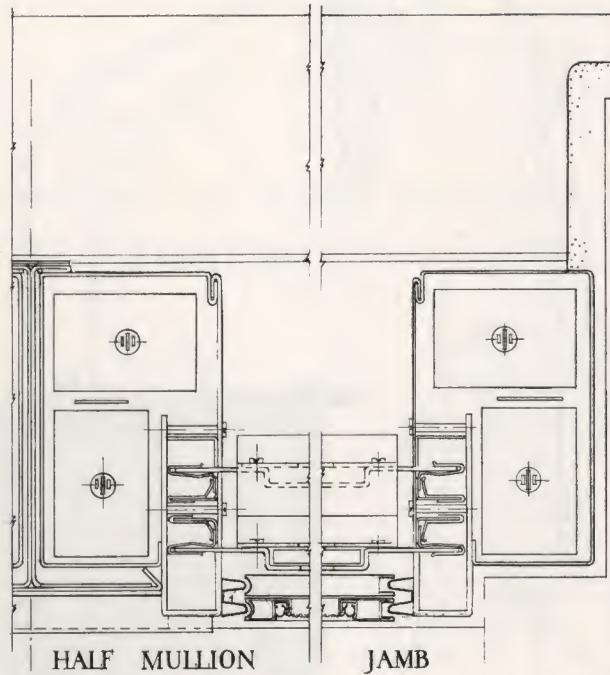
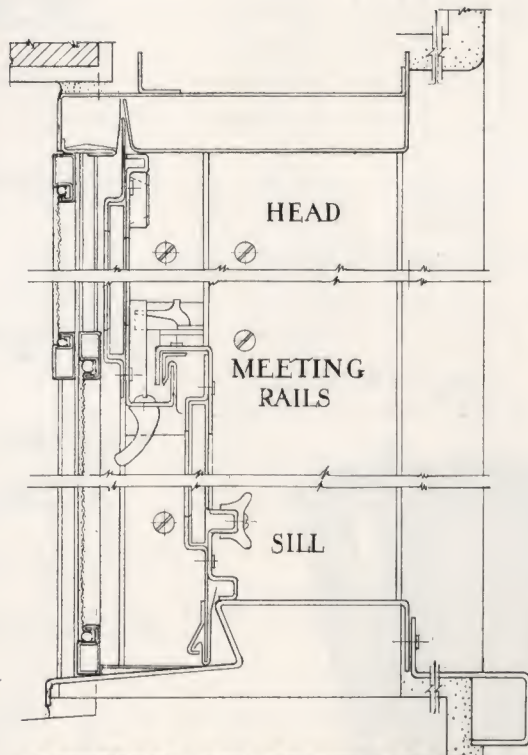
HALF HEIGHT EXTERIOR SLIDING SCREEN FOR DOUBLE HUNG WINDOW WITHOUT SHUTTERS

DETAILS ALSO APPLY FOR WOOD SCREENS - FOR DETAILS OF SCREENS & HARDWARE SEE DRWG'S NOS. 6, 7, 8.

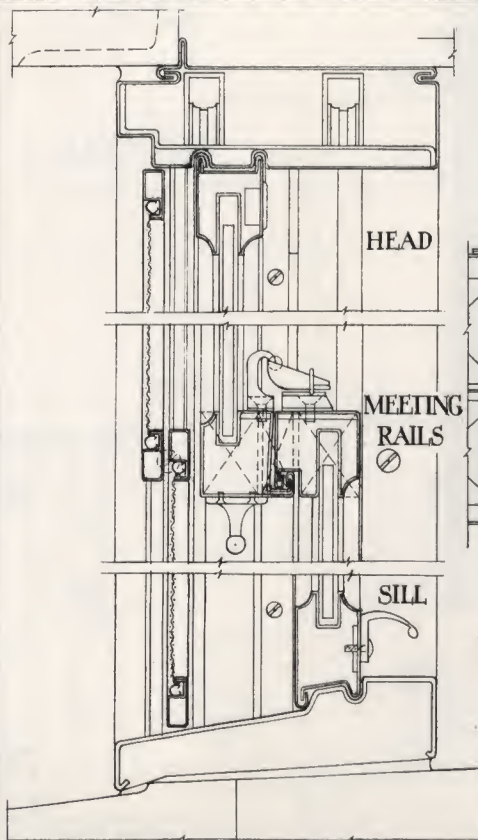
WATSON
MANUFACTURING
COMPANY

EXTERIOR FULL HEIGHT & VERTICAL
SLIDING SCREENS FOR DOUBLE HUNG WINDOWS

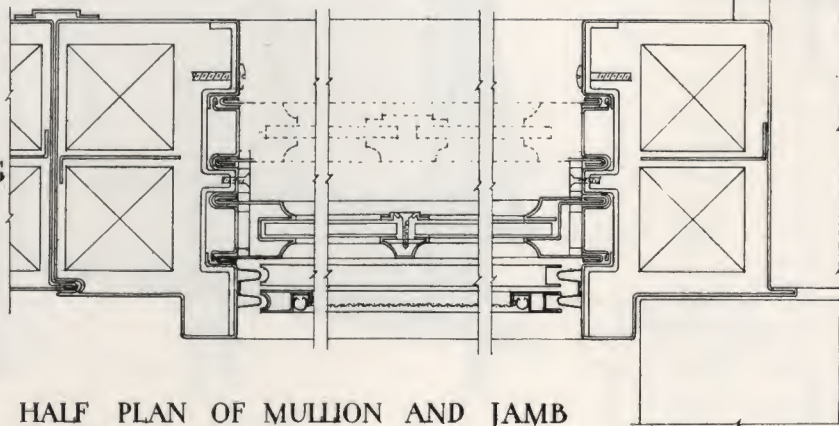
SCALE 3"
EQUALS 1"
DATE NOV 29 1928



METHOD OF SCREENING SOLID METAL DOUBLE HUNG WINDOWS



NOTE: We recommend the use of half high or twin vertical sliding screens for solid metal and hollow metal double hung windows as they allow window cleaners to use the safety belts on the outside of window

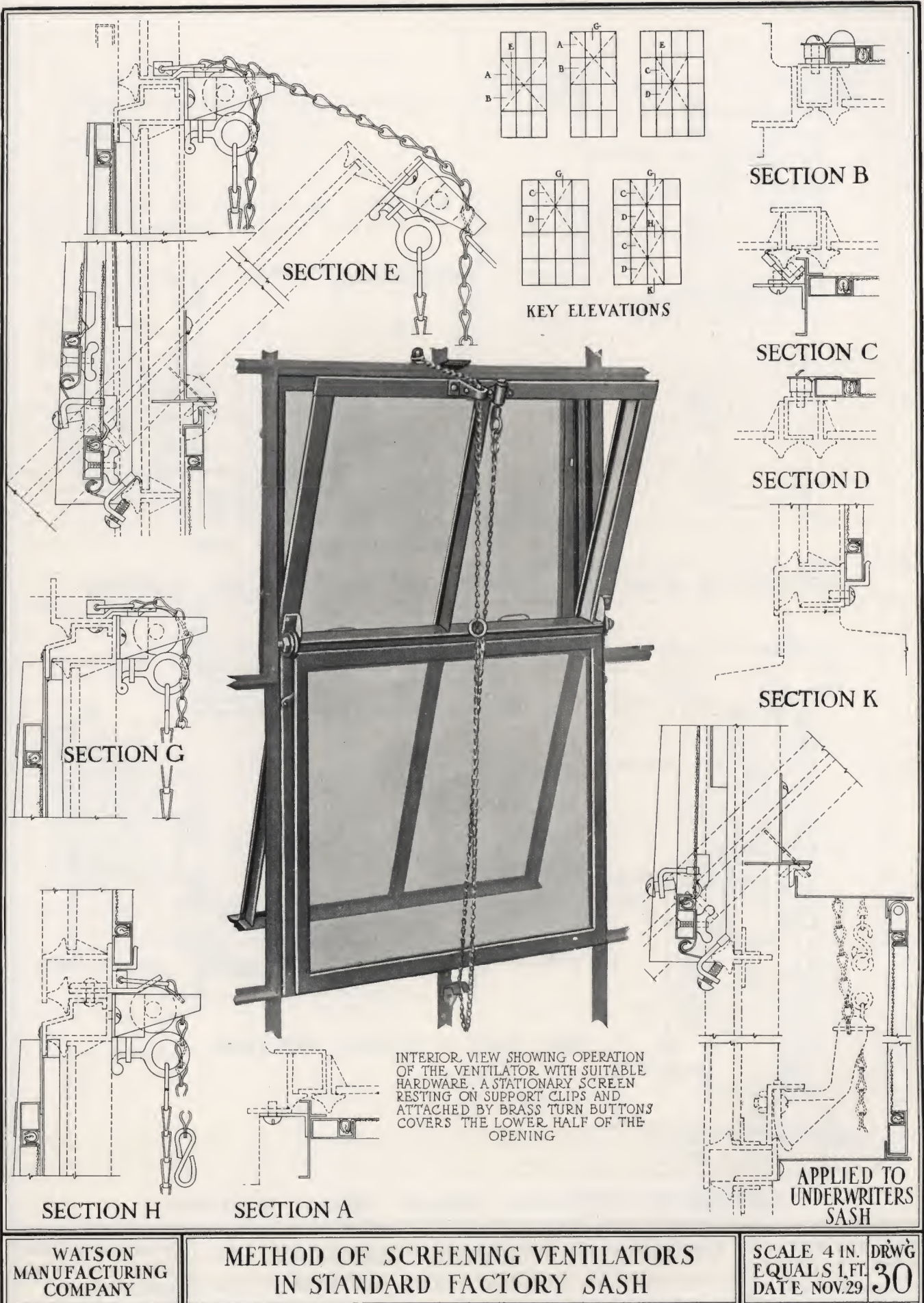


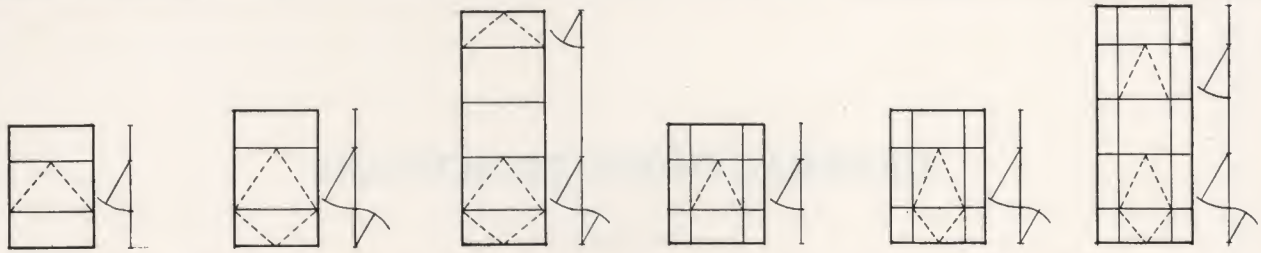
METHOD OF SCREENING HOLLOW METAL WINDOWS

WATSON-
MANUFACTURING
COMPANY

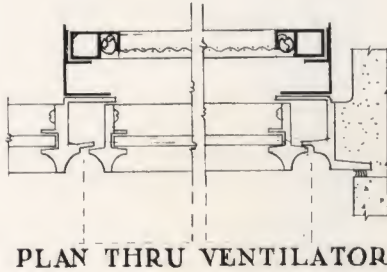
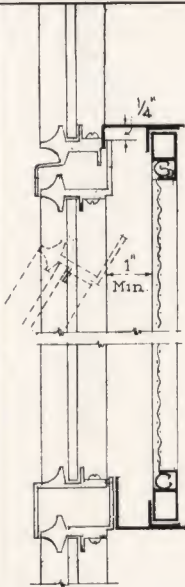
METHODS OF SCREENING SOLID & HOLLOW
METAL DOUBLE HUNG WINDOWS

SCALE: ~ 3" DRWG
EQUALS 1'-0"
DATE: NOV 29 29





VARIOUS TYPES OF PROJECTED WINDOWS WHICH WE SCREEN SUCCESSFULLY

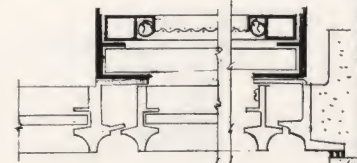
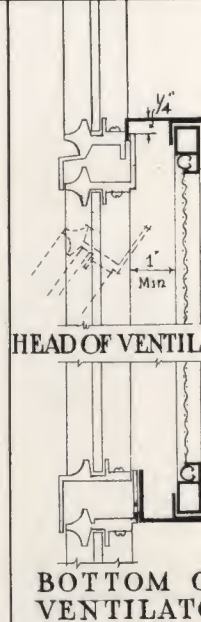


PLAN THRU VENTILATOR

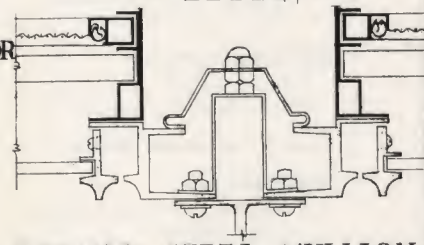
NOTE: The necessary clearance between the top edge of sash and the face of the screen will vary slightly with each manufacturer's sash.

STEEL PROJECTED WINDOWS

VENTILATOR PROJECTING OUT WITH FRAME SCREEN INSIDE OVER VENTILATOR



SIDE OF VENTILATOR

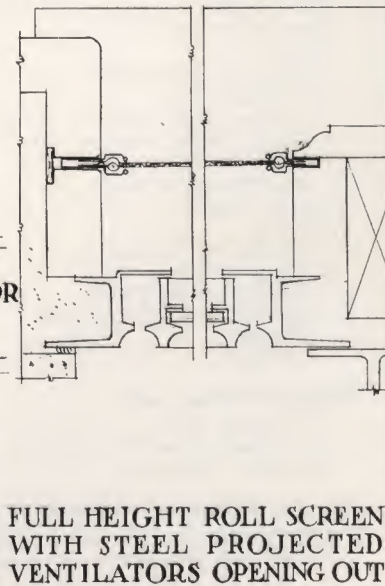
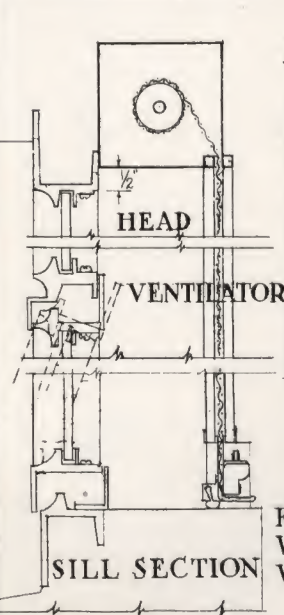


FORMED STEEL MULLION

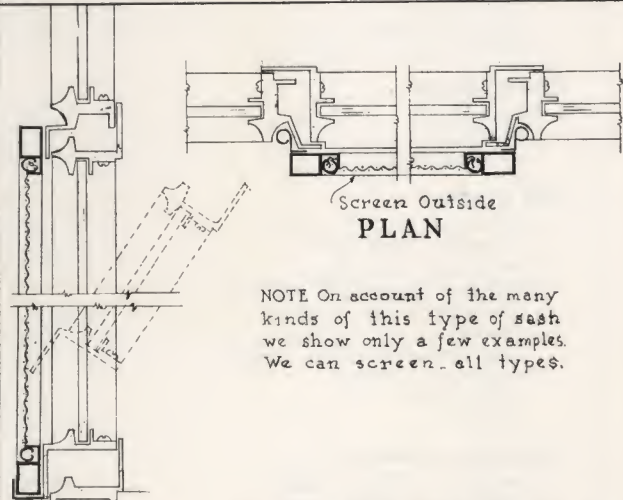
HEAD OF VENTILATOR

STEEL PROJECTED WINDOWS

VENTILATOR PROJECTING OUT WITH TWIN SLIDING SCREENS OVER VENTILATOR ONLY



FULL HEIGHT ROLL SCREEN WITH STEEL PROJECTED VENTILATORS OPENING OUT



Screen Outside
PLAN

NOTE: On account of the many kinds of this type of sash we show only a few examples. We can screen all types.

STEEL PROJECTED WINDOWS WITH VENTILATORS OPENING IN AND FRAME SCREEN OUTSIDE OVER VENTILATOR

WATSON
MANUFACTURING
COMPANY

SCREENING OF VENTILATORS OF STEEL OFFICE &
STANDARD COMMERCIAL TYPE PROJECTED WINDOWS

SCALE: ~ 6" DRWG.
EQUALS 1'-0"
DATE: NOV. 29 31

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